



LONDON- WEST MIDLANDS ENVIRONMENTAL STATEMENT

Volume 5 | Technical Appendices

CFA12 | Waddesdon and Quainton

Baseline report (CH-001-012)

Cultural heritage

November 2013

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Department for Transport

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High Speed Two (HS2) Limited,
Eland House,
Bressenden Place,
London SW1E 5DU

Details of how to obtain further copies are available from HS2 Ltd.

Telephone: 020 7944 4908

General email enquiries: HS2enquiries@hs2.org.uk

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1 Introduction

1.1 Structure of the cultural heritage appendices

1.1.1 The cultural heritage appendices for Waddesdon and Quainton community forum area (CFA12) comprise:

- baseline reports (this appendix);
- a gazetteer of heritage assets (Volume 5: Appendix CH-002-012);
- an impact assessment tables (Volume 5: Appendix CH-003-012); and
- survey reports (Volume 5: Appendix CH-004-012).

1.1.2 Maps referred to throughout the cultural heritage appendices are contained in the Volume 5, Cultural Heritage Map Book.

1.2 Content and scope

1.2.1 This baseline provides the evidence base against which the assessment of assets that may be affected by the Proposed Scheme can be determined. It collates information about known and potential heritage assets from a variety of sources and presents a chronological description and discussion of the development of the study area, placing assets within their historical and archaeological context.

1.3 Study area

1.3.1 The Waddesdon and Quainton community forum area lies within the Aylesbury Vale District in Buckinghamshire and comprises parts of the civil parishes of Waddesdon, Quainton, Grendon Underwood, Calvert Green and Woodham.

1.3.2 All non-designated and designated assets within the land required for construction of the Proposed Scheme and within 500m of it have been detailed in this baseline assessment. In addition designated heritage assets have been examined within the zone of theoretical visibility (ZTV).

1.3.3 All identified assets are listed in Volume 5: Appendix CH-002-012 and shown on Maps CH-01-037b to CH-01-040a and CH-02-19 to CH-02-20R1 (Volume 5, Cultural Heritage Map Book).

1.4 Data sources

1.4.1 Sources examined as part of this baseline assessment include published secondary sources, cartographic sources, Historic Environment Record (HER) data for undesignated heritage assets and English Heritage National Heritage List data for designated assets. A full list of published sources can be found at the end of this appendix.

1.5 Surveys undertaken

1.5.1 The following surveys were undertaken as part of the environmental impact assessment (EIA) process:

- light imaging detection and ranging (LiDAR)¹ survey of the majority of the Proposed Scheme and land around it (see Volume 5: Appendix CH-004-012);
- aerial photograph and hyperspectral survey of the majority of the Proposed Scheme and land around it (see Volume 5: Appendix CH-004-012);
- a programme of non-intrusive surveys including geophysical prospection (see Volume 5: Appendix CH-004-012); and
- site reconnaissance field inspections to review the setting of historic assets and the character and form of the historic landscape (incorporated into this appendix).

¹ Light detection and ranging (LiDAR) is a high resolution remote sensing technique to capture 3D data.

2 Geology, topography and landform

2.1.1 The study area lies within the northern part of Buckinghamshire, the geology of which is dominated by undulating claylands comprising heavy blue-grey clays. These clays fall into two distinct geological bands which run approximately north-east/south-west.

2.1.2 The southern half of the study area is situated on clay of the West Walton, Ampthill and Kimmeridge Formations. The northern half is situated on a separate band, consisting of formations of Kellaway and Oxford Clays. These clays overlie a bedrock geology comprising Jurassic limestone and sandstone of the Purbeck and Portland groups.

2.1.3 The topography of the claylands is generally regular, with limited changes of elevation. Outcrops of the underlying limestone and sandstone form locally prominent hills at Quainton Hill, Lodge Hill (the site of Waddesdon Manor) and Oving. The Proposed Scheme threads between these outcroppings.

2.1.4 Alluvial deposits are recorded along the course of a shallow valley in the southern part of the study area, formed by a tributary of the River Thame. This tributary lies to the east of the Proposed Scheme and extends south-east into the Stoke Mandeville to Aylesbury community forum area (CFA11), where deposits of head and other superficial layers are recorded.

2.1.5 A second water course, the River Ray, rises on Quainton Hill and drains across the study area from east to west and eventually into the Cherwell thence to the Upper Thames. The River Ray itself, along with two tributary channels, crosses the Proposed Scheme from east to west. The first of these tributaries crosses the Proposed Scheme to the east of Doddershall House where a confluence of stream and drains has formed a small area of alluvial deposits. This tributary subsequently curves to the south re-crossing the Proposed Scheme near to Oving Hill Farm.

2.1.6 The second area of alluvium lies along the course of the River Ray itself which runs from east to west in a narrow channel across the Proposed Scheme to the south of Woodlands Farm. This channel of the River Ray is also fed by a second source to the north which crosses the Proposed Scheme from north-east to south-west at Sheephouse Wood.

2.1.7 The course of these tributaries include alluvial deposits along their length. Such deposits have the potential to mask archaeological deposits and to 'seal in' deposits of palaeoenvironmental interest, as well as other assets.

2.1.8 The Proposed Scheme in the northern part of the study area runs adjacent to the west of the Aylesbury Link, which follows the line of London Extension of the Great Central Railway (GCR), as well as the former course of the Grendon Underwood and Princes Risborough Line, which linked the GCR to the Great Western Railway. These 19th century railways may have truncated any archaeological deposits within their footprints, particularly where they are in cutting. The Proposed Scheme is significantly wider, however, and will be largely on undisturbed 'green field' areas.

2.1.9 Areas of clay extraction are recorded at two locations within the study area. These works are likely to have removed any surviving archaeological remains.

3 Archaeological and historical background

3.1 Introduction

3.1.1 This section provides a chronological overview of the archaeological evidence within the study area. This baseline review forms a contextualisation within which individual assets can be considered. Descriptions of all archaeological assets, whether designated or not, which lie wholly or partially within land required for construction of the Proposed Scheme, or within 500m of the edge of this land, are contained in a Gazetteer in Appendix CH-002-012. The assets are mapped in Volume 5, Cultural Heritage Map Book, maps CH-01-037b to CH-01-04a and Ch-02-19 to CH-02-20R1. The Gazetteer also considers all designated archaeological assets within the ZTV. The Gazetteer entries include assessments of value where appropriate.

3.2 Early prehistory (circa 500,000 - 1,500 BC)

3.2.1 The earliest evidence of human occupation in Britain dates from the Lower Palaeolithic (approximately circa 500,000 BC) onwards. This evidence comprises assemblages of flint tools of a variety of typologies and faunal remains. In general very few palaeolithic artefacts have been recorded in the clayland landscape which comprises the landscape of the study area². Palaeolithic or Pleistocene artefacts and ecofacts generally comprise worked flint and faunal remains found on terrace gravels and contexts associated with major rivers, or in cave sites.

3.2.2 Assemblages of Palaeolithic material have usually been recorded in lowland Britain reflecting both the exploitation of river valleys and coastal plains, glacial lakes and other potential hunting grounds³, as well as the preferential survival of remains in such locations. Assemblages are similarly centred in areas of particular geology, near to areas with flint-bearing rocks suitable for tool-making. Palaeolithic remains have been recorded elsewhere in Buckinghamshire, including from gravels associated with the Padbury Brook at Steeple Claydon and Twyford, to the north of the study area⁴.

3.2.3 The watercourses within the study area are local streams and tributaries, and no river terraces or gravels are recorded which might be suitable for preserving re-deposited Palaeolithic remains. No cave sites, or geology or topography suitable for such sites, lies within the study area.

3.2.4 The most significant watercourse, the River Ray, has no deposits of gravels recorded by the British Geological Survey within the study area. Although this does not preclude the presence of yet unidentified remains, the potential for such redeposited flints or other remains to be found associated with the River Ray is considered to be limited.

² Silva, B., (2008), *An archaeological resource assessment of the Lower and Middle Palaeolithic in Buckinghamshire*.

³ Wymer, J., (1968), *Lower Palaeolithic Archaeology in Britain*.

⁴ Farley, M., (2012), Discoveries of Ice Age mammals and other Pleistocene deposits in Central and Northern Buckinghamshire. In: *Records of Buckinghamshire*, Volume 52.

3.2.5 The heavy clay of the study area does not produce significant quantities of raw material for tool production. It is considered unlikely, therefore, that remains of Lower or Middle Palaeolithic date will be recorded within the study area.

3.2.6 Remains dating from the Upper Palaeolithic (circa 50,000 – 10,000 BC) and Mesolithic (circa 10,000 – 4,000 BC) are similarly scarce. Such remains would comprise worked flint and stone (including microliths, which are recorded in greater numbers in the upland areas of Buckinghamshire than in the lowland valleys⁵), bone scatters, and other evidence reflecting the temporary camps of nomadic hunter-gatherer groups. This evidence would be preserved as scatters of material within the plough soil and subsoil.

3.2.7 Mesolithic sites in the wider region are generally located on rising ground overlooking river valleys and watercourses and are frequently found on sandy geology such as the Corallian Ridge and the Hampshire Greensand⁶. No such geologies lie within the study area, which is characterised by heavy clay with a lack of the free-draining soils favoured by hunter-gatherers.

3.2.8 Hunter-gatherer groups in the Mesolithic increasingly began to exploit a wider range of landscapes and localities⁷, potentially including the uplands within the study area. Given the evidence for exploitation of the uplands elsewhere in Britain at this time, there may be very limited potential for remains of this date to lie within the study area. Given the necessity of both water and other resources, the landscape around the River Ray may represent an area of slight potential for such finds.

3.2.9 The Neolithic (circa 4,000 – 2,400 BC) period is generally characterised by more permanent settlement, a reduction in nomadic, transient hunter-gatherer groups, and by the establishment of farming. It should be noted, however, that despite this shift to agriculture, hunting, gathering and fishing remained important to the local economies⁸.

3.2.10 Settlement evidence for the Early Neolithic commonly comprises flint and stone scatters, limited pottery remains, and occasional cut features such as pits. Settlement enclosures and funerary monuments begin to be recorded in the landscape in the later Neolithic, but are scarce, and none are recorded within the study area.

3.2.11 Evidence for this period elsewhere in Buckinghamshire suggests that settlement continued to be situated adjacent to watercourses⁹, with evidence frequently recorded buried or concealed beneath colluvium¹⁰. The emphasis on exploitation of free-draining soils and on generally lighter soils remained, in contrast to the heavy clay of the study area. Such clay is difficult and time-consuming to cultivate. Although the watercourses within the study area are generally small in scale, there may be

⁵ Hey, G., (2010), Late Upper Palaeolithic and Mesolithic. In: *The Solent Thames Archaeological Research Framework*.

⁶ Hey, G., (2010), Late Upper Palaeolithic and Mesolithic. In: *The Solent Thames Archaeological Research Framework*.

⁷ Barton, R.N.E. and Roberts, A. J., (2004), The Mesolithic period in England: current perspectives and new research. In: Saville, A. (ed), *Mesolithic Scotland and its Neighbours*.

⁸ Thomas, J., (1999), *Understanding the Neolithic*, London.

⁹ Kidd, S., (2010), Prehistoric Farmers, In: Farley, M. (ed), *An Illustrated History of Early Buckinghamshire*.

¹⁰ Bradley, R., (2010) The Neolithic and Early Bronze Age. In: *The Solent Thames Archaeological Research Framework*.

potential for finds, and potentially cut features, of Neolithic date to lie within the Proposed Scheme.

3.3 Later prehistory (circa 1,500 BC - AD 43)

3.3.1 The Bronze Age (circa 2,400 – 700 BC) is defined by the first usage of copper and bronze working in Britain, as well as the introduction of Beaker pottery. The evidence for Bronze Age settlement is, historically, much more scarce than that for funerary activity. Early Bronze Age settlement evidence is likely to be broadly similar to that of the Neolithic, comprising artefactual evidence and limited features, overwhelmingly cut pits.

3.3.2 Early Bronze Age (circa 2,400 - 1,500 BC) settlements are most likely to be found on rising ground overlooking water courses and river valleys, or other lighter free-draining soils, a reflection of the need for the resources and transportation provided by the major rivers. No such features have been recorded within the study area, although there may be some potential in the landscape adjacent to the tributaries of the River Ray.

3.3.3 Funerary remains are characterised by a shift from group burials and large group tombs to round barrows and individual burial, including the first recorded round barrows. These barrows are recorded across Britain, and are found across the landscape, possibly reflecting territorial boundaries¹¹. These features more frequently survive as upstanding earthworks in the uplands, but in the lowland as ploughed out ring ditches. This is partially a reflection of differential preservation due to differences in land use, and partially a reflection of the increasing exploitation of more marginal land.

3.3.4 Extant barrows can sometimes be difficult to interpret due to their physical similarity to mill mounds and other later features. Round barrows also contain below ground elements, including ring ditches, and primary and secondary burials, which may survive even when the barrow itself is destroyed.

3.3.5 Seven mounds are recorded within the study area, four of which are recorded by the Buckinghamshire HER as possible post-medieval mill mounds (WAD003, WAD009, WAD024, WAD039, WAD047, WAD060, and WAD122), although it is considered that these have some potential to be the remains of Early Bronze Age monuments. Five of these monuments lie outside the land required to construct the Proposed Scheme and will not be physically impacted by it. One putative mill mound does lie within the land required, temporarily or permanently, for the construction of the Proposed Scheme (WAD122). One former mill mound does potentially lie within the footprint of the scheme (WAD003), in a location recorded by the English Heritage Archive¹². No such feature, however, is visible in this location, and no such feature is recorded on historic maps of the area. This is considered most probably to be a misplaced data point.

¹¹ Watson, A., (2001), Round Barrows in a Circular World. In: Brück, J., *Bronze Age Landscapes: Tradition and Transformation*.

¹² English Heritage Archive Reference 497543.

3.3.6 The Middle Bronze Age (circa 1500 - 1100 BC) saw the first sustained settlement evidence, with round houses, field enclosures and droveways all recorded elsewhere within Buckinghamshire. Settlement evidence for this period would comprise more substantial cut features (including postholes, gullies, enclosures and paddocks) as well as artefactual evidence. Roundhouses are the typical settlement feature of the period found both in isolation and in small groups. As with earlier periods, these settlements are most likely to be found overlooking water courses in landscapes with free-draining soils suitable for agriculture. Deforestation and woodland clearance expanded during this period¹³. This deforestation suggests there may be greater potential for settlement in the more marginal upland areas, including much of the study area. No such settlement is recorded within the study area.

3.3.7 The Bronze Age also saw early land division, evidence for which survives as extant landscape features in central and southern Buckinghamshire. These divisions survive as shallow cut features as well as earthworks and large dykes. There is no evidence, however, for similar large scale land division in the clay uplands, which may have been more suitable for cattle and horses, rather than agriculture¹⁴. Surviving evidence for these land divisions would comprise linear earthworks and ditches, which may or may not correspond to later field boundaries.

3.3.8 As well as settlement features, material culture in the form of pottery and metalwork is more frequently recorded during this period. A Bronze Age hoard, comprising five socketed axes, was found at Lodge Hill in 1855, to the west of the study area. Similar hoards are recorded across Buckinghamshire, and include a wide range of items forming part of a tradition of ritual deposition¹⁵. In addition, there is an antiquarian reference to a pair of Late Bronze Age gold bracelets recorded to the north of Glebe Farm (WADo15).

3.3.9 The extant pattern of isolated farmsteads changed in the Iron Age (700 BC – 43AD). This period saw the addition of larger settlements and more centralised features such as hillforts, of which the nearest example is at Aylesbury, and oppida, the nearest of which is at St Albans. These large settlements are rarer in North Buckinghamshire than in other parts of southern Britain. This may reflect the use of the claylands for livestock, as opposed to arable farming.

3.3.10 In the Late Iron Age (circa 100 BC - AD43) the study area probably fell within the territory of the Catuvellauni¹⁶, with a major oppidum at St Albans.

3.3.11 Population increases during the Iron Age may have necessitated farming on previously more marginal areas, such as the clay uplands. It has been established from mollusc and pollen evidence that the landscape had been largely cleared of woodland in the Bronze Age, which may have further encouraged farming in the study area. Evidence of Iron Age settlement in the landscape around the study area is scarce, although this is more likely to be a function of a lack of archaeological investigation in the region. In areas of more intensive development, such as around Milton Keynes,

¹³ Rackham, (2001) *Trees and Woodland in the British Landscape*, London.

¹⁴ Williams, R. J., (1993), *Pennylands and Hatigans: Two Iron Age and Saxon Sites in Milton Keynes*.

¹⁵ Kidd, S., (2010), Prehistoric Farmers. In: Farley, M. (ed), *An Illustrated History of Early Buckinghamshire*.

¹⁶ Cunliffe B., (2005), *Iron Age Communities in Britain* (4th Ed).

more extensive archaeological works have revealed Iron Age settlement on clayland landscapes. As with preceding periods, the geology and topography would present a challenge to agriculture, but settlement may have occurred adjacent to water courses.

- 3.3.12 Evidence of Iron Age settlement in the study area is scarce; the most significant evidence comes from Woodham in the southern part of the study area where extensive quantities of pottery, bone and charcoal were recorded, probably deposited by a stream (WAD117). These remains were recorded during excavations in advance of a gas pipeline. This particular area has been previously impacted by quarrying, as well as by construction of the road and industrial estate.
- 3.3.13 A possible Late Iron Age kiln plate was found at Waddesdon Manor Farm (WAD006), in association with finds indicative of Romano-British settlement. Evidence of a kiln suggests the establishment of an Iron Age settlement prior to the establishment of Akeman Street, but no archaeological works have been carried out to confirm this.
- 3.3.14 As well as the dated evidence, several undated ditches were recorded during archaeological evaluation (WAD005 are WAD014). Two short linear earthworks were recorded to the north of Briar Hill Farm (WAD011), which roughly follow the contours of a very low hill. These are visible as faint earthworks on LiDAR data (Volume 5: Appendix CH-04-012; Lo4). All of these features are of unknown provenance, but may putatively be of prehistoric origin. They may, however, also be of later date.

3.4 Romano-British (AD 43 - 410)

- 3.4.1 Changes in settlement patterns in Buckinghamshire in the Late Iron Age/Roman Period have been described as 'subtle rather than dramatic'¹⁷. The study area during this period formed part of the Roman Civitas Catuvelaunorum¹⁸.
- 3.4.2 This pattern may not be clear-cut across the region and could have been dependent on the changing quality of the agricultural land as the climate improved¹⁹. It is currently difficult to determine the potential for continuity of occupation of Late Iron Age sites into the Roman period within the study area. Settlement of Roman date is usually more extensive in scale than that of the later Iron Age, with a greater variety of material culture (including new pottery typologies, metalwork and glass); there is also widespread use of stone, brick and tile for building. In addition, the establishment of the Roman road network had a major effect on the landscape, leading to the establishment of new settlements and the growth of existing centres.
- 3.4.3 Evidence of Late Iron Age settlement continuing into the Roman Period has been recorded elsewhere in Buckinghamshire, although no such evidence has been recorded within the study area itself.
- 3.4.4 A small Roman town, Fleet Marston, lay at the intersection of Akeman Street²⁰ (WAD001; recorded by Margary as Route 16a²¹) and two other roads, one of which

¹⁷ Kidd, S., (2010), Prehistoric Farmers. In: Farley, M. (ed), *An Illustrated History of Early Buckinghamshire*.

¹⁸ Zeepvat, R. J. and Radford, D., (2007), *Roman Buckinghamshire*.

¹⁹ Williams, R. J., (1993), *Pennylands and Hatigans: Two Iron Age and Saxon Sites in Milton Keynes*.

²⁰ Zeepvat, R. J. and Radford, D., (2007), *Roman Buckinghamshire*.

²¹ Margary, I., (1973), *Roman Roads in Britain*, 3rd Ed.

extends to the north (Margary Route 162²²) and one which runs to the south, not identified by Margary. This town lies immediately to the south-east of the study area, within CFA 11. It may have been established as a Roman fort²³, although possible origins as a market centre have also been suggested. Finds from this area include pottery, tile, coins, metalwork, and a lead coffin, although no evidence for public buildings as yet. Gullies and ditches of Roman date, probably associated with the town, were recorded immediately to the east of the study area²⁴.

3.4.5 The small town at Fleet Marston can be expected to have had an extensive hinterland of agricultural settlements in order to support it; these could be in the form of both farmsteads and villa estates. Parts of the immediate hinterland appear to have been identified during investigations outside of the study area to the south within CFA 11. Given the proximity of this town, there may be potential for associated remains to extend into the study area, particularly along Akeman Street (WAD001).

3.4.6 There is evidence for Romano-British settlement adjacent to Akeman Street within the study area, potentially within the Waddesdon Manor registered park and garden (RPG) (WAD008). Roman roofing tiles, pottery and a coin found has been recorded as surface finds within the Park. A watching brief at Waddesdon School (outside of the study area) in close proximity to the park, recorded ditches indicative of a Late Iron Age/Romano-British field system, again adjacent to Akeman Street. In addition, there is an antiquarian reference to a Roman vase base and possible settlement recorded around Glebe Farm Cottages (WAD015). This combination of evidence suggests that there may be some potential for a Romano-British agricultural settlement in the southern part of the study area, probably forming part of the hinterland of Fleet Marston. Any such settlement was probably associated with Akeman Street, suggesting that the potential for such remains will be less in the northern area of the study area, which is more distant from the Roman road.

3.4.7 Eight linear features were recorded to the north of Littleton Middle Farm (WAD020) during evaluation in advance of a gas pipeline²⁵. Three of the ditches were parallel, with the remainder at various orientations, with several showing evidence of recutting. Finds from the ditches comprised a small quantity of slag (which analysis suggested originated with smithing rather than smelting) as well as five pieces of Iron Age/Roman pottery, charcoal and burnt clay. Interpretation of the ditches suggests two possibilities. If the ditches date from multiple phases then they may be a field system shifting orientation slightly. Alternatively, if the ditches were contemporaneous they may have been a water-management system; the location of the ditches, around the headwaters of the River Ray, is generally the only area within the study area where this would have been necessary. The Proposed Scheme extends partially into the area of these features, and there is considered to be high potential for further such remains to be present.

²² Margary, I., (1973), *Roman Roads in Britain*, 3rd Ed.

²³ Webster, G., (1980), *The Roman invasion of Britain*.

²⁴ Network Archaeology, (2007), *The Steppingley to Aylesbury Gas Pipeline: Archaeological Watching Brief*.

²⁵ Network Archaeology, (2007), *The Steppingley to Aylesbury Gas Pipeline: Archaeological Watching Brief*.

3.4.8 A second area of Romano-British features was recorded during a separate pipeline excavation, 1km to the north-east, near Upper South Farm (WADo40). This comprised six ditches which yielded animal bone and Romano-British pottery. The scale and layout of the ditches suggests paddocks or enclosures.

3.4.9 Undated ditches, possible of similar date, were recorded during the same pipeline excavation (WADo014) and a small quantity of finds, including residual Romano-British material, were also recorded at two locations along the route (WADo19 and WADo22).

3.4.10 In addition, a possible Romano-British ditch was recorded to the east of Lower Farm (outside of the study area to the east) with a fill including charcoal, baked clay and daub. This has been tentatively dated to the 3rd century.

3.5 Early medieval (AD 410 - 1066)

3.5.1 Evidence for the post-Roman transition period in Buckinghamshire is extremely rare. There are no sites or finds of early medieval (AD410 - 1066) within the study area. This may indicate refocusing of settlement onto lighter soils in the post-Roman period, moving away from the heavy clay and Roman road network which ran across it²⁶. There is no evidence that occupation at Fleet Marston lasted into the 5th century²⁷.

3.5.2 A number of Late Saxon (circa AD 850 - 1066) settlements are likely to have been precursors to extant villages, making identification difficult. Settlement change in the early medieval period saw a shift from dispersed to nucleated villages, many of which expanded during the post-medieval and modern periods. This later expansion can truncate and remove evidence of the early medieval settlements. Waddesdon, Quainton and Shipton Lee are all recorded in the Domesday Survey of 1086, suggesting they had Late Saxon origins.

3.5.3 A Saxon Charter, outlining the extent of an estate at Chetwode, to the north of the study area, dates to AD 949²⁸. Chetwode itself, as a manorial settlement, may have been established in the 7th century AD.

3.5.4 The landscape within the study area during this period was probably at least partially wooded, forming part of the Forest of Bernwood. This represents both a pragmatic use of the heavy clay for grazing rather than arable²⁹ and a mechanism of direct control of the countryside by the monarch. There is a reference in the Anglo-Saxon Chronicle to Bernwood Forest as a location which Viking raiders passed through on the way to an ambush³⁰, and there is later evidence of Saxon Royalty hunting in the forest, including the construction of a Royal Hunting Lodge at Brill which lies to the east of the study area³¹. Bernwood was later designated as a Royal Forest following the Norman Conquest. The forest covered a substantial area during the Late Saxon and Early Norman periods, reaching a zenith in the 12th century, before the

²⁶ Zeepvat, R. J. and Radford, D., (2007), *Roman Buckinghamshire*.

²⁷ Farley, M. (2006), Saxon Buckinghamshire. In: *The Solent Thames Archaeological Research Framework*.

²⁸ Baines, A. H. B., (1998), The Chetwode-Hillesden Charter of 949. In: *Records of Buckinghamshire Volume 24*.

²⁹ Farley, M., (2010), Saxon Buckinghamshire. In: Farley, M. (ed), *An Illustrated History of Early Buckinghamshire*.

³⁰ Farley, M. (2006), Saxon Buckinghamshire. In: *The Solent Thames Archaeological Research Framework*.

³¹ Harvey, I. M. W., (1997), Bernwood in the Middle Ages. In: Broad, J. and Hoyle, R. (eds), *Bernwood: The Life and Afterlife of a Forest*.

contraction and subdivision in the later medieval period³². The study area lies in the northern part of the former forest.

3.6 Medieval (1066 - 1539)

3.6.1 The broad pattern of landscape and settlement which exists in the study area was laid out during the early medieval and medieval period. Clustered villages surrounded by agricultural hinterland predominate, with scattered manors and farmsteads (and an ecclesiastical grange at Shipton Lee) in the surrounding countryside. The landscape was likely to have been at least partially wooded.

3.6.2 During this period the study area formed part of the Royal Forest of Bernwood. It should be noted that 'forest' in this context does not necessarily mean that it was wooded. The word may have originally been derived as a description of a place outside the ordinary laws and subject to special laws concerned with preserving game³³, specifically deer. Nearly always the legal forest was much larger than the physical woodland and areas of unenclosed heath and moorland were considered acceptable elements of a 'forest'³⁴. Any terrain that comprised 'vert', vegetation which afforded food and shelter for game, could be included within the forest³⁵. The establishment of these forests made the pursuit of deer a socially divisive function, restricting venison to the elites³⁶, and the harsh punishments established following the Norman Conquest formed part of a process of direct control of elements of the landscape by the Crown³⁷.

3.6.3 There is evidence of royal hunting in the Forest of Bernwood from the pre-Conquest period (see above) and the settlement of Brill to the west of the study area included a hunting lodge built by Edward the Confessor. Brill itself is recorded in the Domesday Survey of 1086 as being part of a royal demesne manor with the surrounding landscape 'in the kings park'³⁸. This is the first formal declaration of the area as part of a Royal Forest and it is highly likely that the forest expanded throughout the 11th and 12th centuries, in line with the expansion of the forest system throughout Britain. The forest reached its largest extent in the second half of the 12th century when it was recorded as part of the AD 1184 Assize of Woodstock. The Forest at this point extended to the River Great Ouse to the north, to Claydon Brook and Padbury Brook to the east, to the River Thame to the south and into Oxfordshire (at least as far as Woodperry) to the west. This expansion under Henry II, however, was probably a legal jurisdiction in order to provide a link with other Royal Forests, rather than an expansion of physical woodland. An inquest of 1254 details income of the 'Forester' of the Forest of Bernwood, which included contributions from Doddershall, Shipton Lee and Quainton³⁹.

³² Ibid.

³³ Rackham, O., (1990), *Trees & Woodland in the British Landscape*.

³⁴ Harvey, I. M. W., (1997), Bernwood in the Middle Ages. In: Broad, J. and Hoyle, R. (eds), *Bernwood: The Life and Afterlife of a Forest*.

³⁵ Grant, R., (1991) *The Royal Forests of England*.

³⁶ Sykes, N. J., (2006), The impact of Normans on Hunting. In: Woolgar, C. et al., *Food in Medieval England*.

³⁷ Grant, R., (1991) *The Royal Forests of England*.

³⁸ Harvey, I. M. W., (1997), Bernwood in the Middle Ages. In: Broad, J. and Hoyle R., (eds), *Bernwood: The Life and Afterlife of a Forest*.

³⁹ Harvey, I. M. W., (1997), Bernwood in the Middle Ages. In: Broad, J. and Hoyle R., (eds), *Bernwood: The Life and Afterlife of a Forest*.

3.6.4 This expansion of the forest proved unpopular with local landowners and lords and in 1217 the 'Charter of the Forest' was issued. This 'disafforrested' those areas claimed under Henry I, and re-establishing the Forest of Bernwood across a more compact area centred on Brill, Boarstall and Oakley⁴⁰. In addition, the granting of land in the forests to the nobility reduced the area directly controlled by the crown. A perambulation of Bernwood Forest, carried out in 1298, records a much smaller area of forest. Several areas are excluded, as being formerly part of the forest under Henry II, but since having been specifically disafforrested. This includes woodlands at Shipton Lee (within the study area), Twyford, and Middle Claydon (to the north of the study area) suggesting that the study area no longer formed part of the Royal Forest by 1298⁴¹. The earliest maps of Forest of Bernwood, dating from the late medieval and early post-medieval period shows the extent of the Forest of Bernwood again focussed to the west, entirely outside of the study area. Being part of the forest may have had an impact on the development of settlements within the study area although it is difficult to recognise this in the layout of modern villages⁴².

3.6.5 Several areas of designated ancient woodland in the northern part of the study area probably previously formed part of the Forest of Bernwood (WAD087, WAD088, WAD092, WAD093, WAD105, WAD106, WAD107, WAD109, WAD110 and WAD111).

3.6.6 The combination of clay as a raw material, and wood to provide fuel, proved suitable for a thriving pottery industry around Brill and Boarstall, with its products marketed at Oxford, Northampton and Aylesbury⁴³.

3.6.7 The earthwork remains of shrunken and deserted medieval villages (most Buckinghamshire villages reduced in size in the later medieval period⁴⁴) are recorded across the study area along with fishponds, moats, and evidence of higher status manorial and ecclesiastical settlement, as well as several pond bays (water management features).

3.6.8 Waddesdon, to the south of the study area (WAD016), is recorded in the Domesday Survey of 1086. It was a relatively large settlement focussed on the Grade II* listed Church of St Michael and All Angels. The medieval core of the village, which includes the church, lies outside of the 500m study area.

3.6.9 Quainton, to the north of the study area (WAD023), is also recorded in the Domesday Survey of 1086 as a large village. It has a medieval core centred on the Church of St Mary and the Holy Cross and the parish associated with the village extends across much of the study area.

3.6.10 Waddesdon and Quainton represent the surviving population centres within the study area during the medieval period. The economic base was founded on a mix of agriculture and woodland resources. These villages required a large hinterland, and there are open field strip fields recorded across the study area, particularly within

⁴⁰ Harvey, I. M. W., (1997), Bernwood in the Middle Ages. In: Broad, J. and Hoyle, R. (eds), *Bernwood: The Life and Afterlife of a Forest*.

⁴¹ Harvey, I. M. W., (1997), Bernwood in the Middle Ages. In: Broad, J. and Hoyle, R. (eds), *Bernwood: The Life and Afterlife of a Forest*.

⁴² Jones, R. and Page, M., (2006), *Medieval Villages in an English Landscape: Beginnings and Ends*.

⁴³ Harvey, I. M. W., (1997), Bernwood in the Middle Ages. In: Broad, J. and Hoyle, R. (eds), *Bernwood: The Life and Afterlife of a Forest*.

⁴⁴ Taylor-Moore, K., (2012), Medieval Buckinghamshire. In: Farley, M. (ed), *An Illustrated History of Early Buckinghamshire*.

Quainton parish. These areas of ridge and furrow earthworks have been recorded from aerial photographs and LiDAR assessment, and are catalogued in Volume 5: Appendix CH-004-012.

3.6.11 Evidence for these strip fields survives as extant ridge and furrow earthworks. Extant earthworks are recorded within the footprint of the Proposed Scheme at several places (WAD002, WAD012, WAD026, WAD030, WAD032, WAD033, WAD037, WAD038, WAD042, WAD043, WAD044 and WAD059), and even where ploughed out the furrows will survive as cut features.

3.6.12 The Parish of Quainton has been identified as a 'priority township' in an English Heritage study on the characterisation and management of ridge and furrow earthworks⁴⁵, indicating particularly good survival of such remains. As such, those earthworks which lie within the Parish of Quainton (WAD030, WAD032, WAD033, WAD037, WAD038, WAD042, WAD043, WAD044 and WAD059) are considered to be of higher heritage value than others within the study area.

3.6.13 In addition to these settlements evidence of deserted medieval village is recorded at Hogshaw (WAD119).

3.6.14 As well as the extant settlement centres at Waddesdon and Quainton, several more settlements which have subsequently been abandoned are recorded in the Domesday Survey of 1086 and other medieval documents.

3.6.15 One such settlement is at Doddershall, in the central part of the study area (WAD063), in an area between the drainage of the River Ray to the north and the River Thame to the west. This consists of a large complex of earthworks, indicative of a deserted medieval village. An additional earthwork feature lies to the west of the deserted medieval village. This comprises a three sided 'horseshoe' of ditches, which lie adjacent to the main driveway to Doddershall House (WAD050). The Ordnance Survey records the feature as a 'Civil War Battery' (this provenance is discussed in the 'Post-medieval' section below) but it may be of earlier, medieval origin.

3.6.16 These ditches enclose a raised rectangular platform, with the south-eastern side open and unenclosed. This is a feature of undetermined origin. It may form the remains of a medieval moated site, abandoned following the enclosure of the Doddershall estate in 1495⁴⁶. It may also be the named settlement of 'Chaundlers', which is a homestead referred to in a document of 1430^{47,48}, although there is no evidence for this connection beyond the approximate scale of the moated site and the single reference to the homestead⁴⁹.

3.6.17 Several further potentially medieval moated sites are recorded within the study area (WAD048 and WAD070).

⁴⁵ Hall, D., (2001), *Turning the plough: Midland open fields landscape character and proposals for management*.

⁴⁶ Buckinghamshire Archaeological Society, (2012), *Earthworks at Doddershall BAS/2012-04*.

⁴⁷ Buckinghamshire Archaeological Society, (2012), *Earthworks at Doddershall BAS/2012-04*.

⁴⁸ Rodwell, G., (1999), *Doddershall and Shipton Lee*.

⁴⁹ Buckinghamshire Archaeological Society, (2012), *Earthworks at Doddershall BAS/2012-04*.

3.6.18 As well as the villages and manorial settlement within the medieval landscape, ecclesiastical features are also recorded. Grange Farm (WADo55), to the north-east of the study area, is the site of a former Cistercian Grange belonging to Thame Abbey⁵⁰. The Grange included at least four fishponds, which survive as extant earthworks, as well as a mill. Three Grade II listed buildings, potentially with medieval cores, are extant at the Grange.

3.6.19 This Grange and its demense formed part of the hamlet of Shipton Lee, sandwiched between Quainton and Bernwood Forest. The township was focussed on the hamlet of Shipton Lee, which lay immediately to the north-east of the study area (WADo58). This hamlet is now a deserted medieval village, surviving as extant earthworks.

3.6.20 An outlying Hermitage, potentially associated with the Grange, survives as extant earthworks at the junction of Three Points Lane (WADo99).

3.6.21 The earthwork remains of two large pond bays are situated adjacent to the River Ray and may be of medieval origin (WADo84; WADo86). The Cistercian presence in the study area may have been centred at the Grange. The Cistercians as an order took an active role in water management, often for industrial processes and it is likely that the two pond-bays are of medieval origin.

3.6.22 The northern bay (WADo84) lies adjacent to Finmere Wood and is a small, square feature. The pond bay to the south is much larger, rectilinear in shape and situated on a bend in the River Ray (WADo86). A medieval hollow way is recorded to the north of the pond bay (WAD118). Both pond bays are connected by the River Ray. Additional earthworks were noted during walkover surveys adjacent to the River Ray (WADo81). Although these do not form a pattern indicative of pond-bays, they may be of similarly medieval origin. A putative watermill is recorded on the River Ray from documentary sources⁵¹. Several putative earthwork features are recorded in this area, although they do not form a coherent pattern which can be attributed to a former mill.

3.6.23 As well as the pond bays there are extant earthworks of a former medieval watermill at Collett Farm, on the Tetchwick Brook (WADo76). A footpath, running between Waddesdon and Woodham in the southern part of the study area may have originated as a medieval road (WAD115).

3.6.24 A small quantity of medieval pottery was recorded during the construction of a pipeline within the study area (WADo19; WADo22)

3.7 Post-medieval (1539 - 1900)

3.7.1 The post-medieval period witnessed the widespread abandonment of the medieval agricultural organisation based on open fields with its ridge and furrow strips divided by headlands. This was replaced by enclosed fields, both for arable production and to provide enclosed pasture. The enclosure of the landscape commenced in the later

⁵⁰ Kidd, A., (2006), The Cistercian Grange at Grange Farm, Shipton Lee, Quainton. In: *Records of Buckinghamshire, Volume 46*.

⁵¹ Rodwell, G., (1999), *Doddershall and Shipton Lee*.

medieval period and accelerated after the final dissolution of the monasteries under Henry VIII between 1536 and 1539 brought more land into private ownership.

3.7.2 The landscape within the study area was enclosed in a piecemeal fashion from the 16th century onwards. The landscape around Doddershall was enclosed from 1495 (see above), and other areas may have seen similar early enclosure, before parliamentary enclosure was carried out in the 18th and 19th centuries. This led to the regular, rectilinear fields recorded in the southern part of the study area.

3.7.3 The region was fought over during the English Civil War and a possible alternative explanation for the horseshoe earthwork adjacent to Doddershall is as a Civil War gun emplacement (WADo50). This is how the feature is recorded by English Heritage, and by the Ordnance Survey. As a defensive feature it is orientated towards Doddershall House and would be suitable for mounting a single cannon⁵². Both explanations may be correct, and this defensive use may have been a re-appropriation of an earlier farmstead. The earthworks have subsequently been further excavated by modern machinery⁵³.

3.7.4 Several large houses established by the gentry are present within the study area and are often associated with surrounding planned estates, parks and gardens.

3.7.5 Doddershall, a Grade II* listed 16th century house, is situated to the west of the study area. The building was formerly situated within parkland of 19th century date (Victoria County History, 1927) (WADo67). The house is discussed in the 'Built Heritage' section below with the former estate discussed in the 'Historic Parks and Gardens' section.

3.7.6 Waddesdon Manor, a Grade I RPG established by the Rothschild family in the late 19th century, lies immediately to the south of the Proposed Scheme. It is discussed in more detail in the 'Historic Parks and Gardens section, below.

3.7.7 Claydon, the 18th century seat of the Verney family, lies approximately 2.8km to the east of the Proposed Scheme where it runs through the study area. The infrastructure maintenance depot within CFA 13, however, causes the study area to extend to encompass Claydon, which is a Grade II RPG (WAD112). It is discussed in more detail in the 'Historic Parks and Gardens' section, below.

3.7.8 Post-medieval industry is represented by the clay extraction pits that were worked at Upper South Farm (WADo35) during the 19th century. These are recorded on the 1st Edition Ordnance Survey Map of 1880, where they are labelled as 'Old Clay Pits'. Several kilns are recorded in the northern area of the pits. By the 2nd Edition Map of 1899 the area is labelled as 'Brickworks (Disused)' and the northern area has been partially removed by the construction of the London Extension of the GCR and the subsequent construction of the newer driveway to Doddershall House. The northern area of the former brickworks is now a combination of agricultural land and overgrown woodland.

⁵² Buckinghamshire Archaeological Society, (2012), *Earthworks at Doddershall BAS/2012-04*.

⁵³ Buckinghamshire Archaeological Society, (2012), *Earthworks at Doddershall BAS/2012-04*.

3.7.9 The former course of the Wotton Tramway extends across the land required to construct the Proposed Scheme (WADo27). The tramway was a private line constructed in the mid-19th century by the Duke of Buckingham, connecting the estate at Wotton (and later the village of Brill) to Quainton Railway station. The line ran parallel to the existing Waddesdon Road. The tramway closed in 1935 and the tracks were sold for scrap. The line of the tramway is visible in the landscape as a double hedge boundary parallel to Waddesdon Road.

3.7.10 The London Extension of the GCR, an extant railway line established at the end of the 19th century, runs north-west/south-east through the study area.

3.7.11 Watermills were a primary source of power through to the mid-18th century and a medieval example was recorded at Grange Farm, discussed above. The use of windmills, however, also expanded during the post-medieval period and several have been identified within the study area, including a locally prominent example in the village of Quainton (WADo23). Former mill mounds are also recorded at other points within the study area (WADo03, WADo09, WADo24, WADo39, WADo47, and WADo60).

3.7.12 One mill, recorded in the English Heritage Archives⁵⁴, lies in the southern part of the study area (WADo03). No such mill, however, is recorded here on historic maps, and no mill mound was visible on the ground. This may represent a misplaced English Heritage data point.

3.7.13 Many of the farmhouses and associated agricultural buildings in the area were built between the 17th and 19th centuries and it is buildings associated with these scattered farmsteads and the settlements of Waddesdon and Quainton that comprise the majority of this period's built heritage.

3.7.14 A small group of former farm buildings, probably field barns, is recorded immediately adjacent to the land required to construct the Proposed Scheme to the north of Glebe Farm (WADo13). These are first recorded on the 1st Edition Ordnance Survey Map of 1880.

3.7.15 A second farm building, potentially a farmhouse, is recorded to the west of the sewage treatment works (WADo17). These buildings are no longer extant, although building footings and earthworks remain extant.

3.7.16 The location of a third farmhouse lies near to Finemerehill House (WADo97). This complex of buildings is recorded on the 1st Edition Ordnance Survey Map of 1880 and was the original Lower Greatmoor Farm before it burned down in the mid-20th century.

3.7.17 Evidence of now-demolished post-medieval buildings has been recorded to the north of Upper Greatmoor House (WAD114).

⁵⁴ English Heritage Archives Reference 497543

3.8 Twentieth century/modern (1900 - present)

3.8.1 The landscape within the study area has remained overwhelmingly rural during the 20th century. The most modern heritage asset in the study area comprises the former Royal Air Force (RAF) Westcott (WADo91). RAF Westcott was a former Bomber Command base constructed during World War II. It is now a business park and lies entirely outside of the land required to construct the Proposed Scheme.

3.8.2 The railways within the study area are discussed within the 'built heritage' section below.

3.9 Selected archaeological sites within and immediately adjacent to the land required to construct the Proposed Scheme

Doddershall deserted medieval village

3.9.1 Doddershall was probably established as a village in the early medieval period, with a manorial centre at Doddershall House (WADo66). The house itself is a large Grade II* listed building, with a core dating from the 16th century, and was situated in a large area of parkland with an estate extending across the surrounding landscape as far west at least as Doddershall Wood (WADo87). Given the medieval origin of Doddershall it is considered likely that this parkland developed from a medieval deer park. The field to the east of the house is recorded in 1606 as 'Chapell Hill', suggesting potential for a former chapel (WADo65).

3.9.2 Doddershall deserted medieval village survives as a series of extant earthworks extending for approximately 1km around Doddershall House itself. The earthworks are very regular, indicative of a planned medieval settlement⁵⁵ (WADo63). These earthworks comprise a group of rigidly rectilinear features centred on a hollow way.

3.9.3 A second, perpendicular street extends from this central track, as well as a larger open area probably a former village green. The earthworks form a number of closes fronting onto the hollow way and green, and extending to the north of the extant railway (which has divided the earthworks in two).

3.9.4 The earthworks of Doddershall are considered to be a heritage asset of high value as an extent example of medieval settlement. Such settlement earthworks are relatively common in the landscape of the Buckinghamshire and Northamptonshire Doddershall deserted medieval village has a historical relationship with the nearby Doddershall House and has a well-established date of abandonment, enhancing its value.

3.9.5 The fields around the village were permitted to be enclosed for grazing on 11 August 1495, providing an approximate date for the large scale abandonment of the village⁵⁶. It is likely that following this enclosure the landscape around Doddershall was largely emparked⁵⁷, although the parkland is now agricultural fields.

⁵⁵ Buckinghamshire Archaeological Society, (2012), *Earthworks at Doddershall BAS/2012-04*.

⁵⁶ Lewis, C., Mitchell-Fox, P. and Dyer C., (1997), *Village, hamlet and field: changing medieval settlements in central England*.

⁵⁷ Buckinghamshire Archaeological Society, (2013), *The Deserted Medieval Village at Doddershall BAS/2013-02*.

3.9.6 Further earthworks, including moated sites indicative of potential medieval buildings, extend to the south-west of Doddershall House. This includes multiple moated sites, putative fishponds and other earthworks which largely lie outside of the study area.

4 Built heritage

4.1 Introduction

4.1.1 This section provides baseline information relating to built heritage assets within the land required for construction, temporarily or permanently, of the Proposed Scheme, 500m study area and wider ZTV. A broad overview of the character and form of the settlement pattern within the study area can be found in Section 6 of this appendix. This section provides the following information:

- descriptions of all built heritage assets or asset groupings wholly or partially within the land required, temporarily or permanently, for construction of the Proposed Scheme. This includes descriptions of settlements where relevant;
- descriptions of all built heritage assets or asset groupings wholly or partially within 500m of the edge of the land required, temporarily or permanently, for construction of the Proposed Scheme. This includes descriptions of settlements where relevant; and
- descriptions of selected designated assets within the ZTV.

4.1.2 Further information on all these assets, plus those other designated assets which lie within the ZTV but are not described in Section 4.4 of this appendix, can be found in the Gazetteer in Appendix CH-002-012. Assets are shown on Maps CH-01-037b to CH-01-040a and CH-02-19 to CH-02-20R1 (Volume 5, Cultural Heritage Map Book).

4.2 Built heritage assets within the land required, temporarily or permanently, for construction of the Proposed Scheme

The Lodge, Doddershall (WAD036)

4.2.1 Access was not permitted to The Lodge, or the area around it and as such a detailed assessment could not be carried out. This description is based on publicly accessible sources.

4.2.2 The Lodge is a single detached house situated at the junction between the private driveways to Doddershall House and Upper and Lower South Farms. This driveway to Doddershall is not the original course; the original entrance lay to the north (WAD052) before it was severed by the construction of the GCR in the 1890s. As such the extant Lodge does not have a historical connection to the medieval and post-medieval Doddershall estate. The Lodge itself is not recorded on the 2nd Edition Ordnance Survey Map of 1899, providing the earliest possible date (terminus ante quem) for its construction.

4.2.3 The Lodge is a two storey structure in timber and red-brick with a pitched, machine tiled roof and two sets of chimney stacks. The timber frame is infilled with red-brick in a herringbone pattern although the exterior of the building is partially covered in a concrete render. The north-eastern section of the building comprises a gatehouse above the driveway, which passes below. This portal is framed by decorative timber columns on either side, and constructed of the same timber/herringbone red-brick

materials as the rest of the lodge. The gable ends of the building, as well as the front porch, include decorative overhangs.

4.2.4 The building may have been constructed in two phases, perhaps extended or added to shortly after construction, but this cannot be ascertained without a detailed building survey.

4.2.5 A small building is recorded within the footprint of the Proposed Scheme, to the north of the Lodge at Doddershall (WADo45). This building is first recorded on the 1st Edition Ordnance Survey Map of 1880 and is still extant as a small farm outbuilding, within a modern complex of industrial barns. It is not listed.

Railway Heritage

4.2.6 The GCR was the last of the great Victorian mainline railway projects and was opened in 1899 to link London, with a terminus at Marylebone, to Sheffield via Leicester and Nottingham.

4.2.7 The GCR had a junction at Quainton Road (WADo21) where it linked to the now-disused Aylesbury and Buckingham Line (WADo46), and a junction near Woodland Farm where it linked with the now-disused Grendon Underwood and Princes Risborough Railway (WADo73). The link with the GCR and Metropolitan Railway at Quainton Road was bypassed in 1906 by the construction of a new link between Grendon Underwood and Ashendon to create the Great Western and Great Central Joint Railway. A second now demolished station, Akeman Street, lies within the study area (WADo77).

4.2.8 The GCR was constructed to a very advanced standard for its day with very few steep gradients and few sweeping curves to facilitate high speed traffic. The line was also designed to accommodate future European expansion. To this end (and unlike the other great Victorian mainlines) the structures on the line including bridges and platforms were constructed to accommodate the larger European loading gauge, with a long-term view towards connection to Europe via a channel tunnel. Stations were also built to a standardised design as islands between the tracks in order that the track could be moved away from platforms and/or extra track could be added if and when necessary⁵⁸.

4.2.9 The GCR from the beginning had difficulty competing with the existing large railway conglomerates, especially in attracting passenger traffic. The GCR did however develop a niche for moving rich business passengers on fast luxurious trains, effectively creating Britain's first long distance commuter line. The GCR also developed strongly as a route for moving freight⁵⁹.

4.2.10 The financial crisis and poor relations with Europe engendered by World War I and its conclusion put paid to GCR hopes for a European connection and channel tunnel. As such, under the 1923 Railway Grouping Act the GCR became subsumed within the London and North Eastern Railway. Duplicating services already available via both the

⁵⁸ Healy, J., (1987), *Echoes of the Great Central*.

⁵⁹ Healy, J., (1987), *Echoes of the Great Central*.

London and North Eastern Railway and London Midland and Scottish the former line of the GCR did not prosper. As freight transport by rail declined after World War II the line became increasingly neglected.

- 4.2.11 Traffic on the former GCR was run down during the early 1960s with most local and branch line passenger services being cancelled in 1963 with the closure of many rural stations. Mainline services were also heavily curtailed with trains running beyond Nottingham being cancelled in 1960 and the service between London and Nottingham reduced to three slow services per day⁶⁰.
- 4.2.12 A total of 11 bridges, underpasses, and points are recorded within the land required to construct the Proposed Scheme, associated with both the GGR and with the Grendon Underwood and Princes Risborough Line (WADo34, WADo64, WADo71, WADo78, WADo80, WADo82, WADo94, WADo95, WADo96, WAD100, and WAD103).

4.3 Built heritage assets within 500m of the boundary of the land required, temporarily or permanently, for construction of the Proposed Scheme

- 4.3.1 The following built heritage assets or asset groupings, both designated and non-designated, lie wholly or partially within 500m of the land required, temporarily or permanently, for construction of the Proposed Scheme. The assets are described from south to north.

The Grand Lodge at Waddesdon (WADo07)

- 4.3.2 The Grand Lodge and gates at Waddesdon are Grade II listed buildings, situated within the Grade I RPG of Waddesdon Manor. As such, they are considered part of the group of park assets and discussed in the 'Historic Parks and Gardens' section below.

Waddesdon (WADo16)

- 4.3.3 Waddesdon Village is a large settlement immediately to the north-east of the Waddesdon Manor RPG. It includes a conservation area which encompasses the historic core of Waddesdon Village as well as a large area of the Waddesdon Manor RPG. To avoid repetition, this assessment will exclude the area of the conservation area which extends into the RPG; this is considered in detail in the section on Waddesdon Manor, below.
- 4.3.4 Waddesdon Village conservation area can be broadly divided into two main sections; the first along the High Street, and second to the north along Frederick Street and Quainton Road.
- 4.3.5 The High Street is a particularly broad thoroughfare, flanked by a mix of 18th and 19th century residences and commercial properties. The High Street forms the north-eastern boundary of the Waddesdon Manor RPG and there is visible evidence for the strong links between the village and the Manor and the Rothschild Family, including

⁶⁰ Davies, R. & Grant, M., (1984), *Forgotten Railways: Chilterns and Cotswolds*.

the Grade II listed Five Arrows Hotel (named after their historic crest) and the gate to the park itself (a Grade II listed structure).

4.3.6 The High Street area of the conservation area includes all the listed buildings which lie within the village, including the Grade II* listed Church of St Michael - a large parish church with a 12th century nave and 15th century tower which was at least partially rebuilt in 1891. A large chest tomb in the churchyard, dating from the mid-18th century, is Grade II listed.

4.3.7 The northern section of the conservation area away from the High Street is largely residential and comprises a more varied mix of historic and modern buildings. Quainton Road and Frederick Street are orientated approximately north/south and run approximately parallel, forming a quieter area away from the main thoroughfare.

4.3.8 The value of the conservation area and the assets within it is derived from the character and appearance, and the architectural, historical, archaeological, and aesthetic interest of the buildings within it. The High Street area in particular includes a number of listed buildings of high (the Church of St Michael) and moderate heritage value. The relationship between the village and the adjacent Waddesdon Manor is also a key contributor to the value of the conservation area. The establishment of the park and the patronage of the Rothschilds provided impetus for the development of the village and has influenced its architecture and layout.

4.3.9 The landscape setting of the village does not make a particular contribution to its value. The High Street in particular is relatively inward-looking with views to the south screened by trees along the edge of the Manor Park, and views outwards to the north by development within the village itself. Clearer views across the open landscape to the north are possible when travelling along Quainton Road and Frederick Street, which contribute to the rural sense of the village.

Wayside Farm (WAD004)

4.3.10 Wayside Farm was previously a small farm complex, which is recorded on the 1st Edition Ordnance Survey Map. It is now a modern residential building and is not considered to be of heritage value.

Quainton (WAD023)

4.3.11 The village of Quainton lies approximately 800m from the land required to construct the Proposed Scheme. It is a large rural village and includes 48 listed buildings, as well as a scheduled monument (a market cross) and conservation area. The village is situated on a south-facing hillside and includes the locally prominent Quainton Windmill as well as two large churches. The village is structured around a large central green, an area of public open space which commands clear views to the south.

4.3.12 It is a well preserved example of a rural village, with several structures of high value including a scheduled monument, 17th century almshouses and a large, locally prominent windmill. The value of the conservation area is considered to be primarily a result of its character and appearance and its architectural, historical, archaeological, and aesthetic interest which is bolstered by the high number of listed buildings, and the historic and architectural interest of these structures. Due to the commanding

views across the landscape to the south, including from the village green, the setting of the village is considered to make more contribution to its value than other villages in the area. The buildings within the conservation area are, however, the primary arbiter of value of the asset.

Buckinghamshire Railway Centre (WADo21)

4.3.13 Buckinghamshire Railway Centre is a complex of buildings holding a museum dedicated to historic railways. The complex is centred on the main platform building, a Grade II listed structure.

4.3.14 The main platform building is a brown and red brick structure, with a slate roof, two brick chimney stacks and glazed clerestory to increase natural light. The structure is long and narrow in its plan, with a near central booking office and waiting room flanked by smaller offices and lavatories at either end. The majority of these rooms can be entered independently from the outside.

4.3.15 The roadside elevation of the building has a central doorway which is situated under a projecting canopy with decorative bargeboards, cantilevered off cast-iron brackets. Either side of the doorway there are two timber sash windows under arched brick heads, which have glazing bars on the upper light. There are similar windows at the end elevation of the building. The roadside elevation has a dentiled cornice, the motif of which is repeated in the eaves of the building at the gable ends and also in the chimney stacks.

4.3.16 On the platform elevation, a broad timber canopy runs the full length, and the windows mirror those on the roadside elevation. Features on this elevation include signs referring to, and timber posts for, fire buckets with the associated water pump located on the platform nearby. Along this elevation there are four doorways of simple design leading to various interior spaces, with one single door under the gable on the east elevation.

4.3.17 Within the interior the booking hall retains the dado matchboard panelling and timber panelled door, as well as a fireplace and bench seating. The Gentleman's lavatory has timber screens, slate stalls and clerestory glazing.

4.3.18 The smaller platform building is constructed of timber and has a curved asphalt roof. It houses a single waiting room, with a central door and symmetrically placed four-light timber framed windows. The interior has an exposed timber roof and bracing to the walls, and a fixed bench runs the full length of the waiting room.

4.3.19 These two buildings are linked by a brick-fronted platform, and a bridge of riveted cast iron that spans between two brick piers.

4.3.20 The platform itself is described in the listing description as being an 'exceptionally well preserved example of an 1890s railway station', and its value comes partially from this exceptional condition. The other main contribution to its value comes from its association with the GCR, and the historic trains that link to the railway for display and tourism. This active use of the existing railway allows the building to retain a link to its original purpose. The other elements of the landscape around the railway station

complex are not considered to contribute to the value of the listed building, or to the heritage value of the Buckinghamshire Railway Centre as a heritage asset.

Crossroads Farm (WADo31)

4.3.21 Crossroads Farm is a small farming complex. One element of the complex is recorded on the 1st Edition Ordnance Survey Map but this has been extensively altered by more recent development and is not considered to be of heritage value.

Upper South Farmhouse (WADo41)

4.3.22 Upper South Farmhouse is a Grade II listed, late 16th to early 17th century farmhouse with later extensions. Originally L-shaped in its plan, an 18th century extension to the west has resulted in the T-shaped plan present today. There have been further extensions to the property during the late 18th century and early 19th century.

4.3.23 The original rear wing of the L-shaped building has some timber framing to the first floor and is roughcast and whitewashed at the gable end. The remainder of the building has been re-fronted with 18th century chequer brick. The structure has an old tiled roof with two brick chimneys, one of which serves the lounge and is thought to be part of the original dwelling and the other part of the early 19th century extension.

4.3.24 The farmhouse is two storeys high with three main bays (the vertical division of a building, usually relating to windows or doorways). The windows are three-pane leaded casement windows (windows which are side hung to open on hinges). There is a central doorway with a segmental head, in which is a panelled door. The segmental head detail is repeated on the ground floor windows.

4.3.25 A number of features of the original 16th century interior remain, including a fireplace lintel and elements of the timber frame.

4.3.26 It is situated on the northern edge of a small farm complex, with large modern barns to the south. The building is relatively isolated, with a high degree of peacefulness.

4.3.27 The value of the building is considered to lie in the evidential, aesthetic, architectural and historic value of the building as an extant example of an early post-medieval farmhouse. The setting of the building, particularly its relationship with the complex to the south makes a contribution to this value, by placing the building in context as a working farm. More importantly, the rural nature of the building's surroundings maintains the original context of the farmhouse, although the brickworks and extant railway to the east detract from this.

Lower South Farmhouse and Barn (WADo49)

4.3.28 Lower South Farm has two Grade II listed structures present on site: the 17th century farmhouse and an 18th century barn located 30m south-west of the farmhouse. The farmhouse and barn have been listed for their group value.

4.3.29 Originally dating to the 17th century, the 'lobby entrance' style farmhouse (a property with a doorless lobby is created by the presence of a chimney stack) has seen much alteration in the 19th, 20th and 21st centuries. The walls of the structure have been rebuilt in red and vitreous brick, with a 20th century tiled roof, which features

ornamental bargeboards and a brick chimney. The structure is single-storey with further rooms located within the attic.

- 4.3.30 The windows on the ground floor are wooden casement windows, with glazing bars between the glass panes. Those in the left bay have four-panes of glass per window, and those on left three-panes; all set under segmental brick heads. In the attic space there are eave-line dormer windows with half-timbered gables.
- 4.3.31 A number of features of historical interest remain within the interior of the property, including elements of the original timber structure and a large fireplace with a late 18th century pine surround with a moulded dentil cornice.
- 4.3.32 The farmhouse ceased to be part of the working farm in 2003 and a number of alterations were made to allow for the change of use to domestic living. This included the conversion of the 19th century dairy range to the rear of the building and two new windows to the east and west elevations.
- 4.3.33 The 18th century barn to the south west of the farmhouse is a timber framed and weatherboard structure, with an old tile roof and a central wagon entry. To the interior it is possible to view the timber framed roof including the beams, purlins and trusses.
- 4.3.34 The value of the buildings is considered to lie in the evidential, aesthetic, architectural and historic value of the buildings, with the most important element of the setting being their relationship and interaction. The farmhouse is of 17th century date, while the barn is a relatively rare example of an 18th century timber structure. The relationship between the two buildings contributes to the value of both by preserving the original context of the buildings. The complex of farm buildings is peaceful, relatively isolated and rural.

Doddershall House (WADo66)

- 4.3.35 Access was not permitted to Doddershall House and as such this work is based on publicly accessible sources.
- 4.3.36 Doddershall House is a large Grade II* listed property, situated on a moated site and acting as the principal property of the Doddershall Estate. Formerly a courtyard house in its design and plan, Doddershall House now has a U-shaped footprint following the removal of the north-west wing in the late 18th century.
- 4.3.37 The two original wings of the property (the north-east and south-east) were constructed in the early 16th century for Thomas Piggot. The south-east wing is a timber frame structure, the exterior of which has been partly rebuilt in brick and covered with roughcast. The windows in this wing are leaded casement windows with the addition of moulded wooden mullions and transoms (vertical and horizontal bars which divide a window). The long south east elevation has smoothly rendered quoins (stone blocks on the outside corner of a building), moulded wooden detailing to the eaves and irregular 16th century plaster panels displaying profile heads and heraldic badges. To the right of centre is a two-storey projecting porch with ornamental bargeboards and carved wooden scroll brackets at the gables. The porch also has 20th century glazed doors set within an architrave frame and oval windows on either side.

There is chimney stack to the left of centre which is a fine example of 16th century style with a moulded brick cornice, a panel of rusticated brickwork and two octagonal brick shafts with moulded bases and off-set heads. The chimney and porch are repeated on the north-west elevation of this wing, with the chimney either being added or rebuilt in the early 19th century. The courtyard side of the south east wing has a 19th century two-storey canted bay window (a projecting window with a flat front and angled sides) to the left with arched windows, set under Tudor hood moulds. The entrance is located under a projecting triple gabled porch, with large lancet windows (early Gothic windows, tall and pointed in their design) flanking a 19th century door case. The other original wing of the property, the north east, was rebuilt in the early 19th century in brick.

4.3.38 The south west wing, dated by its rainwater heads to 1689, is constructed of chequer brick, roughcast to the exterior with a moulded string course and wooden detailing within the eaves. As with the south-east wing, the south-west also has a two storey projecting porch, this time with additions of a parapet. To the left side of this wing there are six bays of large crossed shaped windows, and to the right two-pane casement windows.

4.3.39 On the ground floor of the south-east wing there is a large hall with moulded cross beams (horizontal structural support), decorative cornice detail and a frieze of 15th and 16th century wooden carved figures, specifically mentioned in the Listing description. Within the room there is a moulded stone fireplace with 16th to 17th century carved panels. There are two further rooms to the ground floor, both with moulded beams and 16th to 18th century panelled doors. The main room on the first floor, above the hall, has large wooden panels and a moulded stone fireplace with 18th century carved surround, similar to those featured in the room below. Connecting the two floors is small staircase with turned balusters.

4.3.40 Within the south-west wing, the staircase hall has a large amount of wooden panelling of different design, much of which has been re-sited from other locations. The varying designs date from the 15th, 16th and 17th centuries, including 16th century linen fold (carving imitating hanging fabric) and 17th century festoons (carved garlands of fruit and foliage tied with ribbons). The staircase is a fine example of late 17th to early 18th century design, with twisted balusters, a moulded handrail and newel post. The staircase also reuses some earlier carvings of figures and early 15th century poppy head finials. On the landing at the top of the staircase, there are two heraldic panels displaying the coat of arms and initials of the Piggot family.

4.3.41 In addition to Doddershall House, there are two structures within the grounds of the house which are Grade II listed. These are the 18th century ashlar well head located in the 'courtyard' of the main house and a pair of 19th century gate piers 60m to the north-west. The well head is circular in its design, with two square piers with moulded cornices and ball finials, which would have originally supported the gear chain. The gate piers are square in their plan and rendered in brick, with additional detail in the form of a moulded cornice and ball finials. Both of these structures have been listed due to their group value.

4.3.42 Doddershall House lies immediately to the west of the land required, temporarily or permanently, to construct the Proposed Scheme, approximately 300m from the centreline of the Proposed Scheme. The building is relatively isolated, and is situated in primarily agricultural land, although historically this formed part of the grounds of the house. These grounds include extensive earthworks of medieval date, including fishponds and evidence of a deserted medieval village. The building is peaceful, due to its isolation and rural setting.

4.3.43 The value of the building is considered derive from the evidential, aesthetic, architectural and historic value of Doddershall as an extant example of a large post-medieval country house, on a medieval manorial site. The interior fittings are considered to make a particularly large contribution to its value. The setting of the building, particularly the former medieval earthworks, makes some contribution to this value, as does the former parkland (although this is now largely agricultural land), by placing the building in its historic context and contributing to the peacefulness.

Woodlands Farm Complex (WADo85 and WADo79)

4.3.44 Woodlands Farm (WADo85) is a large farm complex recorded on the 1st Edition Ordnance Survey Map of 1880, where it is recorded as Leewood Farm. None of the buildings are designated heritage assets, and they are considered to be of low heritage value. The majority of the extant farm buildings lie outside of the land required, temporarily or permanently, to construct the Proposed Scheme. One structure associated with the farm extends into the land required for the construction of the Proposed Scheme. This is a later 20th century building, and is not considered to be a heritage asset.

4.3.45 Woodlands Farm Cottages (WADo79) are a pair of two-storey, semi-detached, late Victorian cottages with later 20th and 21st century additions, situated at the entrance to the driveway to Woodlands Farm. They lie adjacent to the land required, temporarily or permanently, to construct the Proposed Scheme, but entirely outside of it.

North Farm (WADo69)

4.3.46 North Farm, previously part of the Doddershall Estate, is a post-medieval farm with several large modern storage sheds. It is considered to be of some heritage value, due to its historical, archaeological, architectural and aesthetic interest.

Knapps Hook Farm (WADo72)

4.3.47 Knapps Hook Farm is a small farmstead recorded on historic maps of the study area. It is considered to be of low heritage value, due to its historical, archaeological, architectural and aesthetic interest.

Oving Hill Farm (WADo74)

4.3.48 Oving Hill, previously recorded as Woving Hill Farm, is a small farmstead of post-medieval date. It is considered to be of some heritage value, due to its historical, archaeological, architectural and aesthetic interest.

Collett Farm (WADo75)

4.3.49 Collett Farmhouse is a Grade II listed building, situated approximately 320m to the west of the land required to construct the Proposed Scheme. It is a large farmhouse dating from the late 17th century, in rubble stone with a hipped 20th century roof and red-brick stacks. The listing description makes particular reference to some 17th century panelling in the interior, depicting biblical verses.

4.3.50 The building is considered to be of archaeological, aesthetic, architectural and historic interest, with particular heritage value derived from its internal fittings. The building is situated within a modern farm complex and its wider setting is generally rural, although this is restricted to the east by the former course of a railway.

Dry Leys Farm (WADo57)

4.3.51 Dry Leys Farmhouse is an 18th century structure in red brick with a hand-cut tile roof and two brick stacks. It forms part of a small complex of buildings to the north of Shipton Lee. It is considered to be of some heritage value, due to its historical, archaeological, architectural and aesthetic interest.

4.3.52 The setting of the building is dominated by a large modern agricultural building to the west, as well as several smaller buildings. The surrounding landscape, predominantly rural, makes a contribution to the value of the listed building by placing it in its original farming context.

The Grange (WADo55)

4.3.53 The complex of listed buildings at the Grange comprises the Grange Farmhouse, and its associated dovecote and barn. All three are Grade II listed. This complex lies approximately 1km to the north of the land required, temporarily or permanently, for the Proposed Scheme. Medieval earthworks, including a fishpond, are recorded in the vicinity of the buildings.

4.3.54 The value of the structures derives from three areas; in the evidential, aesthetic, architectural and historic value of the buildings themselves; the relationship between the complex; and the relationship between the complex and the surrounding medieval earthworks. The fabric of the buildings is the primary source of this value, as they are extant examples of 18th century farm buildings. The relationship between the buildings enhances this value, giving the complex a group value. The relationship between the buildings and the earthworks in their immediate setting also contributes to their value, by illustrating the continuity of occupation on the site and linking 'The Grange' farm to its medieval predecessor. There are clear views across the surrounding farmland contributing to its value by reinforcing the rural character of the buildings.

Finemerehill House (WADo98)

4.3.55 Finemerehill House is a large Grade II listed building dating from 1875, although it may contain a much older core. It is timber-framed, with red brick inserts and a hipped tiled roof. The building formed part of the Verney Estates, centred at Claydon House, and its setting is largely rural, with an extant railway line running north-west/south-east approximately 500m to the south. Finemerehill House is situated on the top of

Finemere Hill, and is a locally prominent landmark, visible from public rights of way in the surrounding countryside.

4.3.56 The value of the building is considered to reside primarily in the architectural, aesthetic, architectural and historic interest of the building, as an extant example of a late timber-framed building in the vernacular style of the area. In addition, its picturesque quality is specifically mentioned in the listing description, and as such the relationship between the building and the surrounding countryside, specifically views from the south-west and west, are considered to contribute to this value.

Lower Greatmoor (WAD101)

4.3.57 Lower Greatmoor Farmhouse is a Grade II listed farmhouse, with an attached barn which dates to the 17th century. The timber framed structure has whitewashed brick infill and thatched roof with a rebuilt brick chimney to the left of the centre. This original part of the farmhouse has two bays and is one and a half storeys. The windows on the ground floor are three-light wooden casements, with the remainder being 20th century metal casements.

4.3.58 There have been a number of later alterations to the building during the 19th and 20th centuries, including a 19th century two storey single bay extension. This extension is constructed of whitewashed brick with a tiled roof and a single brick chimney. The windows in this extension are three-light 20th century metal casements and the door is also 20th century in date with a tiled lead-to hood.

4.3.59 The remainder of the farm building comprise of a 19th century low brick-built barn formerly used as a dairy and a large 20th century open-sided concrete and metal sheet shed.

4.3.60 The setting of the farm has changed little in terms of its dimension since the early 19th century, and the garden to the east retains the pond, trees and hedges which contribute to the character of the farmhouse. An extant, operational railway line lies approximately 200m to the east.

4.3.61 The value of the building is derived from its architectural, historic, aesthetic and historical interest as a timber-framed building in the local vernacular style, including a less-common thatched roof. This is to an extent reduced by the later alterations but the survival of original timbers and construction materials provide evidence to understand the date of the building. The setting of the building is largely rural, which places the building in context as a farm and barn, and contributes to its value. Links to the countryside to the east, however, are restricted by the extant railway line.

Knowl Hill Farm (WAD104)

4.3.62 Know Hill Farm is a large farm complex recorded on the 1st Edition Ordnance Survey Map of the area. It is considered to be of some aesthetic, historical, architectural, and archaeological interest.

Newhouse Farm (WADo29)

- 4.3.63 The complex of Grade II listed buildings at Newhouse Farm comprises Newhouse Farmhouse, and two stables/ carthouses. The complex is of 18th century date, and is situated immediately to the north of the A41.
- 4.3.64 The value of the structures is derived from their historic, architectural, archaeological and aesthetic interest, and in the group value of the complex of interacting buildings. The setting of the buildings to the north, comprising rural farmland, contributes to this value by placing the buildings in a rural context.

4.4 Selected designated built heritage assets within the Zone of Theoretical Visibility

- 4.4.1 The criterion for inclusion within this section is that the Proposed Scheme is assessed in the impact assessment table in CH-003-012 as having a major or moderate adverse effect upon a designated asset which lies within the ZTV, but outside the 500m study area. Descriptions and considerations of the significance of all designated assets within the ZTV can be found in the Gazetteer in CH-002-012.
- 4.4.2 There are no designated heritage assets within the study area which are located within the ZTV, but outside of the 500m study, that are deemed to have a major or moderate adverse effect as a result of the Proposed Scheme.

5 Historic map regression

5.1.1 The analysis of the cartographic evidence for the study area has been integrated within the archaeological and historical baseline narrative (Sections **Error! Reference source not found.** and **Error! Reference source not found.** of this report).

6 Historic landscape

6.1 Historic landscape characterisation

6.1.1 Buckinghamshire historic environment record has carried out a programme of historic landscape characterisation across the entire county. This section was written with reference to this, as well as historic maps, site familiarisation visits, geology and hydrology sources, and other documents.

6.1.2 The southern part of the study area, to the north and east of the village of Waddesdon, is relatively homogenous, characterised by regular, rectilinear fields with the straight boundaries indicative of parliamentary enclosure. The landscape in this area is overwhelmingly rural with occasional isolated farms, including Glebe Farm, Wayside Farm, Cranwell Farm and Lower Blackgrove Farm. These complexes are generally a mixture of historic farmhouses, and more modern industrial outbuildings and barns. The course of the late 19th century GCR cuts through the study area to the north, bisecting what is a predominantly mid-19th century landscape.

6.1.3 The designed landscape of Waddesdon Manor (WADoo6) lies to the south of the study area. This parkland dates from the late 19th century (see above). Waddesdon itself is a large village focussed on an unusually wide main street, with a Grade II* listed medieval church. The village is a mix of 18th, 19th, and 20th century residential development, and is relatively contained, with no ribbon development extending out along the surrounding roads. Modern utilities, including a small sewage treatment plant, and several high-pressure gas mains, represent small pockets of modern industrial development in the rural landscape.

6.1.4 This pattern of regular parliamentary enclosure, interspersed with small working farms, continues to the north of Waddesdon where the Proposed Scheme runs adjacent to the Aylesbury Link, next to the Buckinghamshire Railway Centre. Although the wider environs remain predominantly rural, the extant railway and the large complex of 19th and 20th century buildings at the Railway Centre are clearly distinct in the landscape as industrial features.

6.1.5 Quainton, a large village with early medieval origins, lies to the north of the Railway Centre. The village is prominent in the landscape, situated on a local high point, and includes a large extant windmill. Quainton is centred on a large village green, with development extending off two parallel roads, Upper Street and Lower Street. The village is a mix of 18th to 20th century residential buildings, with some earlier structures, including the Church. A ribbon development of housing extends along Station Road, running between the village and the railway centre (formerly the village station).

6.1.6 Although the field boundaries in this area are generally regular, Quainton parish includes large areas of extremely well preserved ridge and furrow earthworks. These earthworks are indicative of the open field agricultural regime typically employed in the medieval and post-medieval period. The area around the Buckinghamshire Railway Centre includes particularly prominent examples, which exhibit the reverse-S shape and wide spacing indicative of a medieval origin. These earthworks provide a

much greater time-depth to the landscape; particularly in comparison with the much more regular parliamentary enclosure to the south. Quainton Parish has been identified as a 'Priority Township' in an English Heritage survey of ridge and furrow earthworks in the midlands⁶¹.

6.1.7 To the north of the Railway Centre, the Proposed Scheme runs through the Doddershall estate. Doddershall is a Grade II* listed manor house, originating in the medieval period. The landscape in this section of the study area reflects the piecemeal enclosure carried out by the lords of the manor. The enclosures are more irregular than the landscape to the south, and field boundaries include dog-legs, indicative of enclosed open fields. Extant earthworks of a deserted medieval village lie to the north of the house, and extend into the land required to construct the Proposed Scheme, and further medieval earthworks occur to the north at the Grange Farm and Shipton Lee. The landscape in this area again displays as much historical landscape integrity than the southern section of the study area. The grounds of Doddershall itself are relatively constrained and are centred on the house itself, although the field immediately to the east bears the name 'Chapell Hill' which may suggest the location of a former chapel.

6.1.8 The landscape to the north of Doddershall is much more mixed, and contains a variety of different landscape types. The general character, however, remains predominantly rural, with large agricultural fields and small farmsteads. This area includes the River Ray, which has shaped the character of the landscape. In particular, extant medieval/post-medieval earthworks, indicative of pond-bays and potentially a water mill, are recorded at three locations. Large areas of woodland lie to the north of the Ray, probably surviving elements of the Royal Forest of Bernwood, and several fields show possible evidence of assarting, indicating they may have previously been part of the forest. A 20th century railway extends to the south of the GCR, and a large landfill, formerly a clay works, lies in the very northern part of the study area.

6.1.9 The parish boundaries in the landscape are marked by hedges and drains, which are a mix of probably medieval (the northern boundary of Woodham, which is the course of a probable medieval road) and more modern (the drain between Waddesdon and Quainton) features. The township of Shipton Lee, centred on the Grange and hamlet, was incorporated into Quainton in the 19th century.

6.2 Selected historic landscape components

6.2.1 Within the broader tapestry of historic landscape in the study area, the following landscapes within 500m of the land required, temporarily or permanently to construct the Proposed Scheme have been identified as having particular qualities with regard to historical legibility.

Quainton medieval landscape (WAD135)

6.2.2 This is an area of post-medieval enclosures to the south of the village of Quainton. Although these boundaries are post-medieval the preservation of the ridge and furrow earthworks is particularly good, and the landscape would have formed the hinterland

⁶¹ Hall, D., (2001), *Turning the plough: Midland open fields landscape character and proposals for management*.

of Quainton. These individual blocks of ridge and furrow are elements which form a distinct historic landscape component, one with clearly visible and distinct time depth.

6.2.3 This landscape component is particularly well preserved to the north of the extant railway line and provides a setting with demonstrable time depth and historical legibility that contributes to the value of the village of Quainton.

Doddershall medieval landscape (WAD136)

6.2.4 Doddershall is a landscape comprised of extant ridge and furrow, deserted medieval village earthworks, and the extant Doddershall House. These individual elements form a distinct historic landscape component, one with clearly visible and distinct time depth.

6.3 Important hedgerows

6.3.1 Four hedgerows within the land required, temporarily or permanently, to construct the Proposed Scheme are considered to be important under the Hedgerow Regulations 1997 Criteria for Archaeology and History⁶².

6.3.2 One hedgerow (WADo51) extends from the putative Civil War/moated site earthwork (WADo50). This hedgerow is associated with the earthwork, and as such falls within the criteria. It has been cut through by the extant London extension of the GCR.

6.3.3 A second hedgerow extends between the London Extension and the former Aylesbury and Buckingham Railways (WADo54). This is associated with a possible earthwork feature in the field, and as such is considered an important hedgerow.

6.3.4 A third hedgerow extends to the north of the London Extension, running to a drain to the north (WADo61). This is also associated with a possible earthwork feature in the field, and as such is considered an important hedgerow.

6.3.5 To the north of the Doddershall deserted medieval village, a complex of hedgerows extends across the land required to construct the Proposed Scheme (WADo62), which previously formed part of a parish boundary, and falls within the criteria.

⁶² Hedgerow Regulations, (1997), Statutory Instrument 1997 No. 1160.

7 Historic parks and gardens

7.1.1 Historic parks and gardens, either designated or non-designated which lie wholly or partially within land required, temporarily or permanently, for construction of the Proposed Scheme, or within 500m of the edge of this land, are discussed in this section. They are also listed in the Gazetteer (Volume 5: Appendix CH-002-012). Registered parks and gardens which lie within the ZTV, but outside of the 500m study area, are also included in this section if the Proposed Scheme is assessed in the Impact Assessment Table in CH-003-012 as having a major or moderate adverse effect upon them. Descriptions and considerations of the value of all designated historic parks and gardens within the ZTV can be found in the Gazetteer (Volume 5: Appendix CH-002-012).

Waddesdon Manor (WADoo6)

7.1.2 Waddesdon Manor (WADoo6) is a Grade I RPG and conservation area centred on the Grade I listed Waddesdon Manor. The manor house itself is situated on a local high point, Lodge Hill, the top of which was artificially flattened for construction. The manor house was constructed in the late 19th century for the Rothschild Family, and designed by the French architect Hippolyte Alexandre Destailleur. It is a major country house, largely in Bath stone, designed in the style of a 16th century French Chateau. It includes valuable internal fixtures and fittings, including a 1725 ceiling canvas and large amounts of 18th century French panelling. The manor is situated within extensive grounds, laid out at the end of the 19th century. The park was laid out for Baron Rothschild in the late 19th century by French landscape architect Elie Laine. These grounds include a large number of individually listed buildings and statues, as well as formally laid out gardens, and more naturalistic open landscapes. The grounds of the manor are designated as a Grade I RPG.

7.1.3 The manor house and the majority of the listed buildings within the park are situated in a complex of gardens and pleasure grounds on Lodge Hill. Pathways and designed driveways weave between and around these features. The large collection of listed statues and sculptures, as well as larger structures such as the Aviary, brings the focus of attention inwards, a sense of place which is reinforced by the thick tree cover across Lodge Hill. There are some clear views out, however, including across the Vale of Aylesbury towards the Chilterns. Lady Alice's Walk, which circles Lodge Hill, does include views to the east although these are partially restricted by mature trees.

7.1.4 The Park has two main approaches; past The Grand Lodge at the southern edge of the park; and from the A41 in Waddesdon Village. The Grand Lodge is a large Grade II listed brick pavilion dating from 1880, situated in the south-eastern corner of the RPG in combination with a large, ornate gate. The Grand Lodge is the closest element of the park the Proposed Scheme (WADoo2) within the RPG, and is orientated to face out of the park. The approach to the manor house passes through the gates, past The Grand Lodge, and extends across the Park to Lodge Hill, where the approach to the house via a sharp bend ensures that it is dramatically revealed. The second approach is from Waddesdon Village. This is the primary entrance for visitors and tourists, and is more direct, passing a smaller lodge and emerging quickly onto Lodge Hill.

7.1.5 Although much of the park is in a naturalistic, landscape style, it also includes areas of more formal, geometric gardens adjacent to the house. These gardens form part of the complex of assets on Lodge Hill, contributing to the value of the Manor House and the RPG.

7.1.6 As well as the statues and sculptures on Lodge Hill, the park also includes other large structures, including the Stables, Dairy, and the Home Farm, all Grade II listed. The setting of these buildings is entirely defined by the RPG, and the landscape outside is not considered to contribute to their value.

7.1.7 The value of Waddesdon Park is high, primarily derived from its architectural value of its component parts. Framed views of elements of the surrounding landscape are part of its design and layout, and make a contribution to this value.

Claydon (WAD112)

7.1.8 Claydon is a 100ha Grade II RPG site bounded to the south by the Botolph Claydon and Middle Claydon to the north, centred on Claydon House, a large Grade I listed country mansion dating from the mid-18th century.

7.1.9 Claydon became the seat of the Verney family in the early 17th century. In 1653, Sir Ralph Verney embarked in remodelling the estate including the planting of the garden with ornamentals planting and created a deer park (sited probably in the position of the present park, but on a small scale). At this time a new road to the house was constructed, and work on the development of the natural stream through the park began. Little further alteration was made to the park until the mid-18th century when the then Lord Verney set about improving the estate in order to rival the works being carried out at nearby Stowe. The stable court (Grade II listed) was constructed alongside major alterations to the house, and the park was landscaped by James Sanderson of Reading between 1763 and 1776. After the landscaping of the park by Sanderson, further work was carried out in the gardens in the early 19th century, including the creation of the west terraces by the house.

7.1.10 Claydon can be divided into two distinct areas: the compact gardens and pleasure grounds surrounding the principal buildings of Claydon House, and the wider parkland estate.

7.1.11 The park is centred on Claydon House, a large Grade I listed country mansion dating from the mid-18th century. Claydon House lies approximately 1.3km from the land required, temporarily or permanently, to construct the Proposed Scheme. It is a large, austere building in stone, with an ashlar façade and slate roof. The interiors are elaborately detailed and include extensive features in a variety of styles. The listing description describes the Gothic and Chinese rooms as 'particularly impressive'.

7.1.12 The formal gardens and pleasure grounds surrounding Claydon House date to the mid- to late 19th century. The gardens consist of terraces containing rectangular grass panels surrounded by gravel paths and offer a wide view of the lake and wider parkland.

7.1.13 Close to the south-west corner of the house is the Grade I listed Church of All Saints (a small parish church, with elements (including the nave) dating from the 14th century,

although it was extensively restored in 1871), which dominates the gardens in this sections. The graveyard associated with the church was removed in the 18th century, probably as part of the landscaping works by James Sanderson.

7.1.14 Extending from the terraces close the house are broader terraces and associated wide lawns, a number of which are terminated with a ha-ha, and overlook the wider parkland. The east side of the south lawn is bounded by two walls associated with two walled gardens, with a small brick gazebo set within the west wall. The larger of the two walled gardens, the kitchen garden, features four entrances, one at the centre of each wall. Three entrances which provide access to the gardens and pleasure grounds are marked by brick piers with stone ball finals. A small, late 19th century brick gazebo is incorporated into the south-east corner, with the gardener's cottage located outside the north-east corner. The kitchen garden is cultivated, with a cruciform grass path system, and a central, circular, brick-lined tank. Attached to the west wall is the smaller of the walled gardens, which is laid to grass with perimeter borders and a swimming pool to the centre, and modern glasshouse, attached to the north wall. The gardens also include a Grade II listed, mid-18th century, Gothic style, ashlar fernery. The pleasure grounds extend south from the gardens and contain mature trees and informal grass areas. A brick ha-ha and iron fencing separates the pleasure grounds from the park.

7.1.15 The current park was laid out over the earlier deer park by Sanderson, and surrounds the house, church and pleasure grounds, and falls into two main areas separated by the north and south drives. The western area of the park includes a lake formed by Sanderson from the natural stream running through the park, and has three main sections separated by earth banks planted with trees, and several tree-planted island. At the south end of the lakes lies a Grade II listed single arch, brick and stone bridge, and forms a visual termination of the lake as designed by Sanderson. The eastern area of the park contains pasture and arable farmland.

7.1.16 Two drives bisect the park, entering from the north and south and joining at the pleasure grounds in the centre. The main, north, drive enters off the Middle Claydon to Steeple Claydon lane, west of the Middle Claydon village. This entrance is flanked by two Grade II listed lodge houses, dating to the mid-18th century. The south drive enters off the Botolph Claydon to Charndon lane, past two lodge houses (non-designated).

Doddershall (WADo67)

7.1.17 Access to the Doddershall Estate was not permitted. Doddershall House is Grade II* listed, and previously included a small area of designed grounds. There is, however, no RPG associated with the House.

7.1.18 Doddershall was previously approached along a now removed avenue to the west (WADo52), which may be of medieval origin; it follows the southern edge of the deserted medieval village associated with Doddershall. This driveway, however, was severed by the construction of the GCR in 1899, which also served to cut through the estate.

7.1.19 Doddershall House is now approached from the south-west, along a small road which runs immediately adjacent to the possible Civil War earthworks, past the circa 1900 Lodge (see above). The estate and farmlands associated with Doddershall were extensive, and North Farm, to the west, was recorded as Doddershall Farm in 1883.

7.1.20 This map also includes an area of park which extended to the south of the house. The approximate area of designed parkland is recorded on Map CH-01-39 of the Volume 5, Cultural Heritage Map Book as WADo67. A tree lined avenue, evidence of deliberate landscaping, is recorded extending away to the south of this area. In addition, there may have been a windmill on top of Doddershall Hill (WADo68).

7.1.21 The parkland at Doddershall may have been previously much larger, but by the late 19th century the designed element appears to have been confined to an area to the south of the main house. Following the construction of the GCR, and the re-aligning of the main drive, the estate was refocused to the south. The landscape within the land required to construct the Proposed Scheme appears to be primarily agricultural with no evidence of parkland features.

8 Archaeological character

8.1 Introduction

8.1.1 To determine the archaeological potential for the study area, it was sub-divided into archaeological character areas. These archaeological character areas are derived from a consideration of the current topography, geology and current land-use. From these factors the potential for recovery of archaeological remains is considered.

8.1.2 From these broad character areas, the landscape was further subdivided into Archaeological Sub-Zones (ASZ) which have allowed for a more in-depth understanding of the archaeological potential of the study area. The study area has been sub-divided into 17 ASZ. Although initially defined and characterised by current land use, a number of additional factors have determined the potential of these sub-zones to contain archaeological remains of value. These factors include topography, geology, historic character and distribution of known archaeological finds, sites and assets.

8.2 Character areas

8.2.1 The Archaeological Character Areas described below extend from south to north within the study area.

Archaeological Character Area 1: Aylesbury Vale Claylands

8.2.2 The southern half of the study area forms part of the Aylesbury Vale Claylands. The topography of this area is gently undulating, with limited changes in elevation, with landform derived from the heavy Oxford Clays. These clays, by their nature, are generally poorly drained.

8.2.3 Drainage in the archaeological character area is predominantly south and west into the Upper Thames valley although to the north the archaeological character area drains into the Thames to the west and Great Ouse to the east.

8.2.4 The settlement pattern in this archaeological character area predominantly comprises nucleated villages on higher ground. In general, there is a large amount of regular parliamentary enclosure with some earlier piecemeal enclosures and elements of surviving ancient woodland. Large parts of the archaeological area character were formerly part of the Royal Forest of Bernwood.

8.2.5 Modern land use is predominantly a mix of pasture and arable agriculture. The large areas of pasture mean that ridge and furrow earthworks of former medieval open field systems survive well. The south midlands, including this part of Buckinghamshire, are recognised as having some of the best preserved examples of parliamentary enclosure and medieval ridge and furrow in country.

8.2.6 There has been a lack of investigation undertaken within this ACA, primarily due to the lack of large scale development. Primary evidence comprises evidence of abandoned medieval settlement and agriculture in the form of moated sites, village earthworks and ridge and furrow.

Archaeological Character Area 2: Aylesbury Vale Claylands/ River Ray Headwaters

- 8.2.7 This archaeological character area is similarly dominated by undulating land formed from heavy Oxford Clays. Again, this clay is generally poorly drained, with those water courses that do exist flowing south and west into the Upper Thames.
- 8.2.8 Settlement in the archaeological character area is primarily nucleated villages, usually situated on higher ground. The landscape is dominated by parliamentary enclosure, with some earlier piecemeal enclosures and elements of former ancient woodland, including Bernwood Forest.
- 8.2.9 A lack of archaeological fieldwork has led to a relative lack of archaeological evidence. Evidence primarily relates to abandoned medieval settlement in form of moated sites and village earthworks.

Archaeological Character Area 3: Aylesbury Vale Claylands/ Padbury Brook Headwaters

- 8.2.10 In line with the general character of the whole region, this archaeological character area is dominated by an undulating landform formed from heavy Oxford Clays. Drainage flows north and east into the Great Ouse from the Padbury Brook.
- 8.2.11 The settlement character in this area is more dispersed, comprising scattered settlements and hamlets.
- 8.2.12 As with the archaeological character areas to the south, the predominant land use is parliamentary enclosure with some earlier enclosures and remaining ancient woodland, part of Bernwood Forest. Land use is predominantly pasture, which means that ridge and furrow of former medieval open field systems survives well.
- 8.2.13 Archaeological evidence is limited, again reflecting the lack of archaeological work, with the exception of evidence for abandoned medieval settlement in form of moated sites, village earthworks and ridge and furrow earthworks.

8.3 Archaeological sub-zones

- 8.3.1 The ASZ are presented in Table 1: Archaeological Sub-Zones, south to north. An indication of archaeological potential for each sub-zone is provided.

Table 1: Archaeological sub-zones

| Number | Name | Topography | Geology/soils | Modern land use | Historic character | Archaeology (from baseline) |
|--------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Fields around Cranwell Farm and Lower Blackgrove Farm | Generally level, situated on even ground to the east of Lodge Hill | Mudstone of the Ampthill Formation, with a small area of alluvium extending into the ASZ from the east. | Agriculture, mainly arable. | Predominantly straight, rectilinear fields suggest they were formed by parliamentary enclosure. A small area of ridge and furrow earthworks in the south indicates the ASZ may have formed part of the open field system associated with medieval Waddesdon. | Akeman Street Roman Road (WAD001) lies to the south of the ASZ, and the small Romano-British town of Fleet Marston lies a short distance to the east. As such, there is considered to be potential for Romano-British remains in the hinterland of the settlement. However, no finds or features have previously been recorded within the ASZ. |
| 2 | Former Waddesdon Common | Slightly undulating, generally falling away to the north towards the stream forming the northern edge | Mudstone of the Ampthill Clay Formation, with a small band of head extending into the ASZ from the north-east. Superficial deposits of alluvium laid down by flooding in the very northern area. | Agriculture, mainly arable. | Formerly common land associated with the village at Waddesdon. Under agriculture since at least 1880. | Some potential for palaeoenvironmental remains associated with alluvium to the north; however this lies outside of the land required to construct, temporarily or permanently, the Proposed Scheme. A former windmill is recorded in the southern area, but no extant evidence is recorded. Situated relatively close to Akeman Street Roman road and Fleet Marston small Romano-British town. |
| 3 | Parliamentary enclosure north of Waddesdon | Generally flat, with higher ground in the southern and western areas, gently descending towards the stream to the north-east. The change of slope to the west, associated with a stream channel, marks the edge of the ASZ. | Mudstone, a mix of the Ampthill Formation and the West Walton Formation. Alluvial deposits are recorded in the northern area, outside of the land required to construct the Proposed Scheme. Alluvial deposits associated with the stream channel to the west form the edge of the ASZ. | Agriculture, mainly arable. | The landscape comprises very regular enclosures resulting from planned, parliamentary enclosure, with none of the reverse-S boundaries or dog-legs indicative of enclosed open fields. A small area of ridge and furrow earthworks in the central area is the only surviving element of an earlier agricultural regime. | The archaeological record in this area is sparse; there is antiquarian reference to a Roman settlement at Glebe Farm (WAD015), and undated ditches have been recorded in the northern area of the ASZ. The location to the north of Akeman Street Roman road, outside of the Romano-British small town at Fleet Marston, suggests the landscape may have formed part of the hinterland of the settlement during the Roman period. Two linear earthworks, of uncertain provenance, are also recorded. |

| Number | Name | Topography | Geology/soils | Modern land use | Historic character | Archaeology (from baseline) |
|--------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 | Fields to the south of the Buckinghamshire Railway Centre | The topography drops relatively steeply from the highest point to the south-east, before flattening out into a broader, flat area corresponding to a small stream valley. | Mudstone, a mix of the Ampthill Formation and the West Walton Formation. A band of alluvial deposits is recorded alongside the main stream, and several smaller channels and drains are also recorded. | Agriculture, a mix of arable and pasture. | The ASZ is rural and agricultural, with the straight boundaries indicative of parliamentary enclosure. There is extensive survival of ridge and furrow earthworks within these enclosures, which formed part of the agricultural base of Quainton. Buckinghamshire County Council Historic Landscape Characterisation suggests it was formerly common land. | Two areas of archaeological excavation (WAD020 and WAD040 have recorded ditches of Romano-British field systems, as well as redeposited pottery of similar date. Medieval and post-medieval pottery, probably a result of manuring, has also been found. The watercourses in the area make it a more likely area for early settlement than the homogenous clay elsewhere in the study area. |
| 5 | Buckinghamshire Railway Centre | Flat, a small area entirely developed. | Situated on West Walton Mudstone, but the ASZ is entirely hard-standing. | Extant railway centre. | Formerly an active station, it was re-appropriated for the Buckinghamshire Railway Centre. | The centre itself is a heritage asset; however further archaeological remains will have been removed by its construction. |
| 6 | Former claypit | Wooded copse and large pools, formerly a brickworks. | Mudstone of the Weymouth Member. | Unused. | Formerly a claypit and brickworks. | No potential for pre-modern archaeology, as the extraction of clay will have removed any deposits. Some potential for late 19th century brickwork features. |
| 7 | Doddershall outer estate | Generally level, and broadly on a slight south-east facing slope, rising towards Doddershall Hill to the north-west. | Mudstone, a mixture of the Weymouth Member and the West Walton Formation. A small area of alluvium extends into the ASZ from ASZ8. | Agriculture, a mixture of arable and pasture. | Large agricultural fields, with irregular boundaries resulting from piecemeal enclosure, initially by Thomas Pigott in the 16th century. The landscape character has been altered by two extant railway lines which have severed links across the estate. | Doddershall may have included a medieval deerpark, which may have extended into this ASZ. At least one putative moated site is extant, and there are extant ridge and furrow earthworks. |
| 8 | Doddershall House and | The house is situated on a low ridge, running north-west | The ridge and hill is formed by an outcropping of West Walton Mudstone, which extends | House and grounds, along with modern agriculture in | The grounds of Doddershall itself, with a designed avenue of | Extensive remains of medieval and post-medieval settlement and parkland features are extant as earthworks. The |

| Number | Name | Topography | Geology/soils | Modern land use | Historic character | Archaeology (from baseline) |
|--------|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Grounds | to south-east. The ridge climbs towards Doddershall Hill to the north-east. | above the surrounding Weymouth Member. The Tetchwick Brook has been canalised to form the western boundary of the ASZ, and alluvial deposits are recorded along its length. | the outer areas. | trees to the south. | eastern area of the ASZ is recorded as 'Chapell Hill' (WADo65) suggesting potential for currently unrecorded buildings. |
| 9 | Doddershall deserted medieval village | The ASZ is situated on slightly lower ground, overlooked by Doddershall Hill. It is generally flat, with a slight east-facing slope. | The deserted medieval village sits squarely on an area of alluvium associated with a feeder of the Tetchwick Brook. The underlying solid geology is Mudstone of the Weymouth Member. | Agriculture, primarily pasture. | Formerly a medieval village, abandoned after enclosure by Thomas Piggott in the 16 th century. | Deserted medieval village (WADo63), comprising low earthworks indicative of building platforms and closes. As well as the extant remains, the location of the site on a floodplain suggests potential for palaeoenvironmental deposits. |
| 10 | Doddershall Outer Estate | The ASZ lies around the low ridge formed by Doddershall Hill, and is largely flat. | The underlying geology is formed of Mudstone of the Weymouth Member. | Agriculture, primarily arable. | Generally regular enclosures, although this area was probably enclosed by the landowner in the 16 th century. | Although finds and features in this area are relatively sparse, it formed part of the Doddershall estate, and lies immediately adjacent to a deserted medieval village. |
| 11 | River Ray and surroundings | The topography of the ASZ slopes down into the Ray, forming a shallow valley, before rising to a high point to the north, adjacent to Finemere Wood. | The underlying bedrock is Mudstone, of the Weymouth Member. Alluvial deposits are recorded alongside the course of the Ray, although no gravel terraces are recorded. | Agriculture, a mix of arable and pasture, as well as two small lakes. | The landscape within the ASZ has historically been agricultural, with straight boundaries and regular enclosures indicative of parliamentary enclosure. | The River Ray represents an attractive location for early settlement, as one of the larger watercourses in a landscape of heavy clay. There is a potential medieval water mill to the north, and several pond-bays indicate historic exploitation of the river. Several earthworks, of unknown origin, were recorded during a walkover survey. |
| 12 | Woodham extension | Very flat, due to its situation on a former railway line. | Mudstone of the Weymouth and Stewartby Members | Unused. | This ASZ lies entirely within the landtake of a former railway line, and former industrial workings. | The railway line itself is a heritage asset, and there are extensive Iron Age remains in the southern area. However, any remains within the land required for the construction of the Proposed Scheme are likely to have been removed. |

| Number | Name | Topography | Geology/soils | Modern land use | Historic character | Archaeology (from baseline) |
|--------|-----------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13 | Finemere Wood | Gentle south-facing slope, on the southern edge of Finemere Hill. | The underlying geology is Mudstone a mix of the Weymouth and Stewartby formations. | Woodland. | The ASZ is designated as ancient woodland, and is recorded as such on early maps. | The ASZ formed part of the medieval Royal Forest of Bernwood, and there may be evidence of medieval woodland features from this period. Settlement remains are unlikely. |
| 14 | Farmland on the edge of Bernwood Forest | Generally flat, although rising to Finemere Hill to the east | The underlying geology is Mudstone of the Stewartby Member. Small areas of alluvium are recorded along the course of a small stream, a tributary of the Ray. | Agriculture, primarily arable. | This area was probably part of the Royal Forest of Bernwood, before being disafforested in the later medieval period. There is some evidence of assarting. This area probably formed part of the Verney Estate, centred at Middle Claydon. | Limited evidence has been recorded, but there is evidence of medieval activity in the surrounding landscape. |
| 15 | Romer/ Greatsea/ Balmore Wood | West-facing slope, forming the western edge of Finemere Hill | The woods lie on an interface between Mudstone of the Stewartby Member, and Mudstone of the Weymouth Member | Woodland. | The ASZ is designated as ancient woodland, and is recorded as such on early maps. | The ASZ formed part of the medieval Royal Forest of Bernwood, and there may be evidence of medieval woodland features. Settlement remains are unlikely. |
| 16 | Sheephause Wood | The wood is situated on a gentle south-facing slope. | The underlying geology is Mudstone of the Stewartby Member. | Woodland. | The ASZ is designated as ancient woodland, and is recorded as such on early maps. | The ASZ formed part of the medieval Royal Forest of Bernwood, and there may be evidence of medieval woodland features. Settlement remains are unlikely. However, there may be evidence of earlier activity, given the south facing slope and proximity to a small watercourse. |
| 17 | Former claypit | As a former claypit, the original topography has been removed. | The solid geology comprises Mudstone of the Peterborough Member. | Landfill | Formerly part of the Royal Forest of Bernwood, this was excavated as a claypit in the 20th century. | Any archaeological remains will have been removed. |

8.3.2

9 Analysis and research potential

9.1 Analysis of understanding

9.1.1 There is a clear lack of archaeological evidence within the study area, primarily as a result of lack of development, and potentially due to the inhospitable environment formed by the heavy Oxford Clay. Archaeological assets and features identified within the study area are primarily medieval and post-medieval, although there is considered to be potential for encountering further unrecorded archaeological assets and features, particularly of Iron Age/Roman date.

9.1.2 Key archaeological sites have been identified within the land required for construction of the Proposed Scheme. These comprise:

- earthworks of unknown date near to Glebe farm (WADo11);
- the remains of Roman field systems to the north of Waddesdon (WADo20; WADo40); and
- the remains of Doddershall deserted medieval village (WADo63).

9.1.3 The geology and topography of the study area, being heavy clay with limited water courses, is ill-suited to occupation and exploitation. The streams within the study area are limited in scope, although several areas of alluvium are recorded along these watercourses and there is potential for these deposits to 'seal in' palaeoenvironmental remains. Any environmental remains may help in reconstructing past environments, thereby allowing for a more in depth understanding of past societies.

9.1.4 The study area appears to have been largely wooded during the early medieval period, part of the Royal Forest of Bernwood with disafforestation and assarting undertaken during the later medieval period. Moated sites are common, along with the deserted medieval village at Doddershall, and the layout of settlements is considered to represent expansion of medieval cores. The landscape is a mix of regular parliamentary enclosure and extant ridge and furrow earthworks (which have the potential to mask earlier remains), including particularly well preserved examples in Quainton Parish.

9.1.5 The area of highest archaeological potential is considered to be around the River Ray in the central area of the study area, and around Doddershall. There is also potential for Roman remains in the southern area, adjacent to Akeman Street Roman road and close to the Romano-British small town at Fleet Marston. Potential elsewhere is harder to quantify, again primarily as a result of the extremely restricted corpus of archaeological work which has been carried out.

9.2 Research potential and priorities

9.2.1 Many research questions can best be formulated at either a scheme-wide or at a county/multiple community forum area level. These will draw heavily on the regional

and period research frameworks, which have been prepared with support from English Heritage⁶³.

9.2.2 This section presents research questions which are specific to the heritage assets, either known or suspected, within the Waddesdon and Quainton study area.

Research Questions

- can knowledge of earliest hominin activity in region be refined and can the hypothesis that there is no pre-Levallois activity north of the Vale of Aylesbury be tested?
- is there evidence of prehistoric land division on the claylands within the study area?
- There is a general lack of archaeological evidence within the study area; is this a biased result of limited archaeological works, or does it reflect limited historic activity due to the heavy clay and lack of watercourses?
- are the mill mounds in the area truly mill mounds, or are they (potentially re-used) Bronze Age funerary monuments?
- Romano-British activity is more established within the study area, and ditches and field systems are anticipated within the land required to construct the Proposed Scheme. Is there an Iron Age or earlier date to any of these systems and can the processes behind the Iron Age to Romano-British transition in North Buckinghamshire be clarified?
- to what extend did the field systems and settlements of the Iron Age to Roman transition in the study area result in a re-shaping of the landscape?
- how far did the hinterland of Romano-British small town of Fleet Marston extend along both Akeman Street, and into the wider countryside?
- can the extent(s) of Bernwood Forest be determined at various periods; can our understanding of the processes behind the expansion and decline of the Royal Forests be expanded, and is there evidence of assarting and other woodland settlement activity?
- can the chronology of Doddershall deserted medieval village be clarified? Was it a planned settlement constructed at in one phase?
- what was the designed use and potential re-use of the moated site/Civil War earthwork adjacent to the land required to construct the Proposed Scheme?
- what evidence survives relating to the construction of the railways, and can we draw any conclusions about their role in social history, including any navvy camps or other features?

⁶³ Oxford Archaeology, (2009-2010), *The Solent-Thames Research Framework Resource Assessment*.

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